



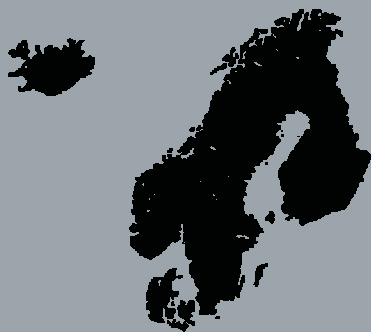
TECHNE   Research in Sloyd Education and Crafts Science A:14/2009

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SERIES

**PROCEEDINGS  
OF THE CRAFTICULATION & EDUCATION  
CONFERENCE**

Leena K. Kaukinen (Ed.)



***NordFo***

Nordic Forum for Research and Development  
in Craft and Design

**TECHNE SERIES**

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OF THE CRAFTICULATION & EDUCATION CONFERENCE**

**Leena K. Kaukinen**  
**Editor**

*NordFo*

Nordic Forum for Research and Development in Craft and Design

Published by NordFo, Helsinki, Finland  
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ISBN 978-952-10-5578-2 (printed)  
ISBN 978-952-10-5579-9 (PDF)

Printed by  
Helsinki University Press  
Helsinki 2009

## foreword

You are holding in your hands the Proceedings of the Crafticulation and Education Conference which convened in Helsinki, Finland, from the 23<sup>rd</sup> to the 27<sup>th</sup> of September 2008. The Conference was organized by the Department of Home Economics and Craft Science in the Faculty of Behavioral Sciences at the University of Helsinki.

The event consisted of three parts, the Pre-Conference on the 23<sup>rd</sup> September under the theme 'Embedded in the Finnish Bed'. The Scientific Conference took place for three days from the 24<sup>th</sup> to 26<sup>th</sup> September. Also a Post-Conference tour was offered to St. Petersburg, Russia, to see and experience historic art, craft and architecture in a neighboring environment from the 27<sup>th</sup> to 29<sup>th</sup> September.

This publication consists of the scientific papers sent to us to be refereed by the Scientific Committee of the Conference. In this book the papers have been divided into two parts, firstly the articles on craft science and secondly the articles on craft education. Both parts are further divided into a section of plenary and parallel session papers, a whole of forty different articles. The articles are arranged and presented in the alphabetical order of the authors.

We thank the University of Helsinki which has supported the Crafticulation and Education Conference both financially and in numerous other ways. We extend our thanks to the Federation of Finnish Learned Societies in the Academy of Finland, to NordFo, the Nordic Forum for Research and Development in Craft and Design, which has accepted the conference articles to be published as a part of its A-series.

Finally we thank cordially all the speakers and participants of the conference, the keynote speakers, chair persons and session paper speakers and authors, all of you who spoke and wrote making this conference and this publication possible. We hope you pleasurable moments with the articles of this book.

Helsinki 30<sup>th</sup> April 2009

Leena K. Kaukinen  
Editor

## PART I – CRAFT SCIENCE PLENARY SESSION PAPERS

<i>Sandra Alföldy</i> Rebel Craft: Weaving Craft into the Academy	9
<i>Pirkko Anttila</i> Expanded Concept of Knowledge in Research of Art and Craft Works	14
<i>Ellen Dissanayake</i> Then and Now: How our Species' Past has Prepared Humans to Make and Respond to the Arts	22

## PARALLEL SESSION PAPERS

<i>Brian Dougan</i> Craft-Based Design as a Means to Architecture	31
<i>Päivi Fernström</i> From Craft-Based Design to Industrial Design in the Production of Dora Jung	36
<i>Carole Gray and Gordon Burnett</i> Making Sense: an Exploration of Ways of Knowing Generated through Practice and Reflection in Craft	44
<i>Gunvor Guttorm</i> Small Pieces of Antler Make Sense	52
<i>Sara Hanghøj</i> The Constitutive Sofa Cushion – Materialization Analysed from a Cultural Perspective	61
<i>Minna Kaipainen</i> Gendered Craft – Tailoring in Finland from the 1920s to the 1960s	69
<i>Sarah Kettley</i> Parallels in the Evolution of Craft and Authenticity	76
<i>Seija Kojonkoski-Rännäli</i> Quality of the Maker	84
<i>Ritva Koskennurmi-Sivonen</i> Fashion and Architecture Intertwining Features in the Creations of Kirsti Kasnio	93
<i>Andrew Livingstone</i> Decentred Meaning: Ceramic Materiality - Relocating Process and Technique	101
<i>Ana M. Lopez</i> The Changing Nature of Blacksmithing Instructional Systems in America and its Effect on the Participation of Women: Nineteenth Century to Present	113

<i>Marketta Luutonen</i> Hand Made Marketing	119
<i>Fanke Peng, Georgina Follett, Louise Valentine, Seaton Baxter</i> The Craft of Visual Analysis	128
<i>Sinikka Pöllänen</i> Craft as Therapy and Therapeutic activity	138
<i>Kati Reijonen</i> Sen and the Art of Basket Weaving	145
<i>Kirsti Salo-Mattila</i> Vitalism, Art, and Craft	154
<i>Outi Sipilä</i> Everyday Design of Women – Decorations on Aprons in the First Half of the 20 <sup>th</sup> Century	169
<i>Sandra Wilson</i> A New Worldview for Craft Education in the 21 <sup>st</sup> Century	175
<i>Patricia Woods</i> Collaborative Practices – the Alliance of Craft, Science and Industry through Practice Based Research into the Colouration of Pewter.	181

## **PART II – CRAFT EDUCATION**

### **PLENARY SESSION PAPERS**

<i>Kajsa Borg</i> Communication and Learning in Sloyd Practises – A Research Project	191
<i>Marte Sørebo Gulliksen</i> Teaching Form Quality in Craft	199
<i>Ene Lind</i> Studying and Teaching Craft: Possibility and Necessity	206
<i>Pirita Seitamaa-Hakkarainen</i> Craft Design Processes in Virtual Design Studio	213

### **PARALLEL SESSION PAPERS**

<i>Arja Aarnio</i> Collaborative Designing of a Textile Craft Workshop in a Networked Learning Environment	229
<i>Ossi Autio, Jenni Hietanoro &amp; Heikki Ruismäki</i> The Touch of Craft, Design and Technology – Factors in Students Attitudes	237

<i>Susanne Björkdahl Ordell</i> Sloyd Circus – to Stage Aesthetic Learning	244
<i>Faith M. Clover &amp; Kelly Hrenko</i> Crafting Bridges between Cultures in Minnesota: Birch Bark in Ojibwe and Scandinavian Crafts	253
<i>Bent Illum</i> Learning in Practice – Practical Wisdom – the Dialogue of the Process	259
<i>Åsa Jeansson</i> What is Knowledge in the Swedish School Subject Sloyd? - Teachers Opinions of the Contents in Sloyd.	268
<i>Tarja Kröger</i> Multicultural Craft at the Website “Virtual Craft Place”	275
<i>Henna Lahti</i> Facilitating Collaborative Practices in Craft and Design Education	281
<i>Eila Lindfors</i> Crafts in Basic Education – A Challenge for Craft Science	290
<i>Mika Metsärinne</i> A Theoretical Approach to Artifact Development in Sloyd/Technology Education	299
<i>Esko Mäkelä</i> Toy Tales – a Narrative Approach on Sloyd	307
<i>Riikka Räisänen</i> Comprehensive Learning of Craft – Students Experiences and Thoughts about Integrated Learning at the University in Craft Teacher Education	315
<i>Doug Stowe</i> Tools, Hands and the Expansion of Intellect	321
<i>Māra Urdziņa-Deruma</i> The Content of Textile: Traditions and Innovations in Schools of General Education in Latvia	326







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## **REBEL CRAFT: WEAVING CRAFT INTO THE ACADEMY**

“Crafticulation” is an important new term that encourages the sustained exploration of how we articulate craft as a field of research. This essay will focus specifically on how craft history is articulated (or crafticulated) as a discipline within post-secondary education; however, the North American perspective employed in this paper must be qualified. I am a craft historian. I teach in a department of art history. In 2002 when I was hired as NSCAD University’s craft historian then President Paul Greenhalgh noticed the disparity in the title “art history,” in relation to the craft history courses, and he changed the department name to Historical and Critical Studies. This may seem like a trivial detail, but it has proven to be the source of continuous debate and provides the foundation for many of the arguments contained in this essay. My art historian peers, who are my friends, who trained in some of the same university departments as me, who share a similar language and knowledge base as me, hate the name change and objected strenuously when it was proposed. They would like to reclaim the name art history. Certainly they have a point – historical and critical studies is a very broad and interdisciplinary term – but given that I occupy one of four positions in Canada which specializes in craft history it is important that students have some help ascertaining where craft history is taught.

The debate over embedding craft history within art history has led to many questions. Is craft history a separate discipline? Should it be separate from art history, design history, material culture studies or anthropology (to name only a few)? Why is it still considered to be rebellious – in Canada at least – to offer students history and theory classes that focus on the crafts? This paper will undertake three principal areas of investigation into the state of craft history within the academy: First, who is teaching craft history and where? Second, why is the divide between decorative art history and craft history so impactful? Third, how can we identify the various disciplines researching the crafts, and can we unite our academic peers?

### **Teaching craft history**

Canada has a patchy history of craft education and there is debate surrounding the amount and quality of craft education in Canada throughout the twentieth century. Design historian Virginia Wright has argued that Canadians had limited opportunities to study any of the craft disciplines until after World War Two.<sup>1</sup> However, recent research indicates that in Quebec the crafts played a significant role in design education thanks to the efforts of Julien Hébert and l’École du Meuble.<sup>2</sup> A major problem in researching the history of craft education in Canada are the language and cultural divides between French and English speaking Canada, and as a result Quebec’s advanced position in relation to education in the crafts, and the promotion of the crafts, has been under-recognized outside the province. In terms of craft history, the first full-time craft historian hired at a Canadian university was Dr. Alexandra Palmer, who took the job at NSCAD University in 1995.<sup>3</sup> Although there is no research indicating how many craft studio instructors teach craft history in their classes, there is an important distinction to be made between the teaching of craft in the studio and the teaching of the history of craft.

The boundaries between these two areas are fuzzy because the vast majority of craft history that has been taught in Canada (and one might argue in the United States as well) has been done in the studio

classroom, by studio professors. These classes are often focused on the material concerns of that particular studio class, for example ceramic history in ceramics or textile history in textiles. There is absolutely nothing wrong with this approach. In fact, craft education relies on the passing down of materially-specific histories from mentor to student. At NSCAD University the ceramic professor Walter Ostrom is famous for his dynamic, energetic ceramic history lectures, where he inspires students with his vast knowledge. Ironically, given the current debate about positioning craft history within art history, when Ostrom was hired at NSCAD University in 1969 one of his roles was teaching art history as well as ceramics.<sup>4</sup> By the mid-1970s Ostrom was no longer teaching in the art history department, and his ceramic history classes were confined to the ceramic studio classroom. These studio-based history classes suffer from three problems. First, they are materially specific, so they do not have the opportunity to put craft issues into the broader context of craft history, and students can complete their post-secondary education without becoming “crafticulate” on the field as a whole. Second, it is still difficult to find textbooks on specific or entire craft histories that approach them from a variety of perspectives. Finally, these histories frequently have to be fitted into studio class time, and therefore they often have to be compressed, shortened or dropped completely.

This summer at NSCAD University the American ceramists Julia Galloway (Chair of the School for American Craft at the Rochester Institute of Technology, New York) and Margaret Bohles (ceramics professor at the University of Minnesota), undertook an exciting experiment called “Making History.” In this co-taught studio class history was emphasized, and each student was assigned at least three historical ceramic objects which they had to reproduce. At the opening of the exhibition Galloway spoke of the importance of the “ceramic history toolbox” each student had developed. The students expressed their gratitude over acquiring this toolbox, and while the exhibition and project were exciting to witness, many problematics surround the idea of a history toolbox. By containing tools specific only to ceramic history students may be less able to recognize overlaps shared with other craft materials and histories. More importantly, the ability to simply identify given histories does not allow for a more sustained, nuanced examination of the problems and issues these histories raise. Isolating craft histories into specific materials and departments is detrimental to the project of crafticulation, or the larger goal of raising the profile and study of the crafts as a unified field. There is a lack of information sharing. Often professors teaching these histories are not aware of others teaching similar topics if they are not within the same small community of makers who share a given material.

### **Material specificity**

In North America a complex set of materially-specific organizations have developed. These include NCECA (the National Council on Education for the Ceramic Arts), SNAG (the Society of North American Goldsmiths), the Textile Society of America and the Surface Design Association. Yes, it is important that the skills and histories of specific craft groups are focused in these organizations, however these groups also compete for membership and arts funding. Often this fractures the idea of a larger craft community. The striving for meta-narratives within each of these craft fields is also an issue, as it risks over-simplification and the repetition of mistakes made early on in the field of art history. For example, if students in Halifax, Nova Scotia are told that their ceramic toolbox can contain as many examples of Asian ceramic forms, glazes and designs that they want, and if students then proceed to use these Asian influences without questioning their subject position, then they open themselves up to a range of critiques regarding the appropriation of Asian ceramic traditions. Students will be more adept at interpreting cross-cultural craft traditions if they have been educated in the long history of craft appropriation using methodologies that highlight colonization,

globalization and post-colonial reactions to the idea of borrowing. Craft history can provide the context for this type of analysis, where instead of fitting history around studio time students have the privilege of entering into a sustained discussion of craft theories and histories. As well, craft history is the training ground for the critics, curators and professors who will go on to promote and deconstruct the work being produced from these ceramic toolboxes. In no way is it suggested that craft history replace the histories provided within the studio by trusted studio professors, or available at conferences put on by materially-specific craft organizations. Instead, it is essential that both approaches are cultivated in order to create sophisticated, articulate craftspeople and historians. Why is this so important? Because until craft history becomes recognized as a legitimate field of study it will continue to be relegated to the margins by research funding organizations and university art history departments as a specialized area of interest that belongs to the various craft media. This argument may not resonate in Europe or the United Kingdom, but in Canada at this point in time there are no programs for practice-based research, and no opportunity to for Ph.D. students who can deftly combine studio concerns with the broader theory and history of craft. Therefore, the divide between the maker and the historian remains pronounced.

### **Craft research and funding**

This is where the idea of crafticulation becomes meaningful. Better crafticulation can advance research in the crafts; it will create programs that train graduate students as craft historians; it can create positions for craft historians; it will help academics researching the crafts obtain funding for their projects; it allows for craft objects and work that crosses boundaries to be featured in major galleries and museums; crafticulation will ensure that the crafts are reviewed and promoted in mainstream and scholarly art publications. In North America we need to better articulate the importance of craft in order to have its social relevance in our contemporary world recognized and celebrated. Despite the success of *Stich n' Bitches*, alternative non-corporate craft fairs and ecologically sustainable craft projects we are still arguing with our funding bodies over the need to categorize craft not simply as a heritage concern, but as a vital, energetic field with a rich history. In spite of a recent federal government report that shows that Canada cultural sector contributes over eighty billion dollars annually to the economy, the Conservative government has just eradicated several cultural programs that supported the crafts.<sup>5</sup> We are begging our universities to include the crafts in their art history and studio departments. And we continue to lack curators and art critics capable of promoting craft initiatives.

Canada has long looked to Scandinavian countries like Finland for leadership in these pursuits. Canada's first high-profile craftspeople were Erica and Kjeld Diechmann who established Dykeland's Pottery in New Brunswick in 1935. Originally from Denmark, the Diechmanns brought to Canadian craft a new and exciting professional modernism that was captured in their ceramic forms and colours. They became media darlings because they were so crafticulate – they convinced reporters, tourists, collectors and government administrators that the studio craft movement was important to Canadian society. The only problem with the Diechmanns is that they were too articulate and they became so popular and overstretched that it led to "...emotional tensions...the entire house turned upside-down."<sup>6</sup> The Scandinavian aesthetic spread across the country and by 1955 Vancouver, British Columbia's Mouldcraft Plywoods was producing furniture described as having "...a Scandinavian aesthetic that was highly influential on Canadian design."<sup>7</sup> However, the Scandinavian aesthetic as it was interpreted in Canada during this time linked craft to high modern design, and as a result the study of craft as separate or distinct from design in Canada has been rare. Even rarer is a clear articulation of the divide between the decorative arts and craft.

### Decorative arts versus craft

A significant but under-recognized gap exists between these two areas. Because of the process of institutionalization behind craft materials this divide is important to the discussion of the crafts in research and education. The decorative arts, loosely defined here as historical, traditional objects made from materials and utilizing craft forms, are very well studied within certain art history programs, and represented in many prominent art galleries and museums. As a result many art historians would argue that the crafts are not under-represented in their programs or art institutions; however, when one considers what the crafts represent today – an innovative exploration of materials, forms and ideas – they are clearly not the same as the decorative arts. For example, how can we compare a Sèvres teapot to Jeannie Mah's interpretation of a Sèvres cup that speaks of her position as a postcolonial subject? If art history programs and art museums are promoting and preserving the decorative arts they are doing a poor job providing the same level of support for contemporary craft. This is an enormous problem and opens up questions surrounding the criteria for inclusion in art institutions. Where is the line drawn between the decorative arts and craft? Does it have to do with forms and materials? Who decides what educational programs are going to feature craft versus those that specialize in the decorative arts? Can the two areas benefit each other? If the crafts are not given equal attention, then it must come as no surprise when they do not receive the same level of financial support from universities, galleries and museums, or are lacking in graduate studies programs. This has a tremendous ripple effect. If professors have not been exposed to the richness and legitimacy of craft history then how can we expect that they will support a topic, or begin research, in this field? How can we identify who are kindred spirits in craft research, and the disciplines they occupy? How can we crafticulate with each other?

### Uniting our peers

When we organized the Neocraft conference at NSCAD University in November 2007 one of the most exciting things we observed was the wide variety of disciplines represented by the conference delegates, including art history, philosophy, geography, women's studies, anthropology, material culture studies, folk lore studies, native studies, history, sociology, business, design history, architecture, and computer studies, never mind all the individual craft and design fields. The other striking feature was that so many people did not know that they shared research interests with these various disciplines. Some people were upset by the fact that other scholars were exploring their area of research using completely different methodologies. Interestingly, the British journal *Crafts* sent a reviewer, Charles Darwent of the *Independent on Sunday*, who had limited experience with the crafts, and who had never before attended a craft conference, to cover Neocraft. Darwent picked up on the diversity of methodological approaches which in his review he framed in a rather negative light, writing that the crafts suffered from "chaos."<sup>8</sup> In a later article for *Art Review* he acknowledged that this chaos had a silver lining, "Somewhere in all of this, you sense the opening of a middle ground, or at least of a no-man's land. The problems of NeoCraft are not going to go away tomorrow, but they may go away one day; and the implications for art are enormous."<sup>9</sup> Darwent's assessment of the scholarly craft community as it is reflected at conferences like Neocraft and Crafticulation speaks of the same thing – the need to organize into a more cohesive group. Why? Because the crafts occupy an exciting moment and are expanding at a rapid rate and in order to support this growth we need to recognize that a number of scholars across disciplines share an interest in craft. Yes, we may all hold different degrees, utilize various methodologies, write and speak in different languages, and even vehemently disagree with each other on our definitions of the culture of craft, but we are all working toward expanding the discourses

surrounding craft. Or to quote the goal of the Crafticulation conference, our efforts are part of understanding how craft is “...constantly made, unmade and remade.”<sup>10</sup>

We need to get to know each other, to understand each other’s educational context, to share ideas, students and grant monies. If we do not crafticulate with each other then how can we expect to educate the wider world on the role craft plays in cultural practices? We must pursue the idea of collective strength to ensure that a day will come when every art history program in North America and around the world offers craft history and supports the hiring and research initiatives of craft historians and theorists. We must ensure that these craft historians work with their peers in other fields to break down the artificial barriers between disciplines. We cannot risk reproducing the meta-narratives that art history is struggling to undo – we are a relatively new field with tremendous opportunities to open ourselves up to a broader understanding of how craft is central to self-expression in all cultural contexts. There are no easy solutions for how to begin uniting these collective interests in the crafts. It is undeniable that conferences like Crafticulation play a central role in beginning to identify who is involved, and how they are articulating the story of craft. Now we must seize this momentum and push forward to ensure that we enjoy more conferences, more publications, graduate more scholars and form more international organizations with the goal of continuing this crafticulation.

## Endnotes

- 1 See Virginia Wright, “A History of Confusion,” in Gloria Hickey (ed.) *Making and Metaphor* (Hull: Canadian Museum of Civilization, 1994).
- 2 Julien Hébert was later an instructor at L’École du design industriel at L’Université de Montréal. See Martin Racine and Alain Findeli, “Julien Hébert and the Emergence of Industrial Design in Canada,” *Design Issues*, vol. 19, no. 4 (Autumn 2003): pp. 31-43.
- 3 Dr. Palmer left NSCAD University in 1997 to become the Chief Curator of Textiles at the Royal Ontario Museum. Between 1997 and 2002 the craft history position was unoccupied, thus Canada did not have a full-time craft historian during those years. Since 2002 craft historians have been hired at NSCAD University (Halifax), Concordia University (Montreal), Alberta College of Art and Design (Calgary) and The University of Western Ontario as well as the hiring of a craft-based material culture historian at the University of Alberta (Edmonton).
- 4 Walter Ostrom, personal interview, 28 April 2004, Halifax.
- 5 Canadian Broadcasting Corporation (CBC Radio 90.5 FM) “Mainstreet,” 26 August 2008.
- 6 Rachel Gotlieb, “Married to Pottery: A Life of Uncertainty,” in Melanie Egan et al. *Crafting New Traditions: Canadian Innovators and Influences* (Gatineau: Canadian Museum of Civilization, 2008): 18.
- 7 Alan Elder, “The Artist, the Designer, and the Manufacturer: Representing Disciplines in Design for a Living,” in *A Modern Life: Art and Design in British Columbia 1945-1960* (Vancouver: Vancouver Art Gallery and Arsenal Pulp Press, 2004): 47.
- 8 Charles Darwent, “Neocraft,” *Crafts*, Issue No. 210 (January 2008): 42.
- 9 Charles Darwent, “Old Hat or the New Bag?” *Art Review*, Issue 21 (April 2008): 97.
- 10 Quote taken from the Crafticulation home page, <http://www.helsinki.fi/kklt/crafts/index.htm>, accessed 15 August 2008.

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## AN EXPANDED CONCEPT OF KNOWLEDGE IN RESEARCH ON ART AND CRAFT WORKS

Each discipline is interested in the structure of its own knowledge. Forms of knowledge vary from one discipline to the other, but striving for knowledge is universal. Knowledge is a complex concept with a multilayered meaning. The classical definition of knowledge references to Plato: in order to be recognised as knowledge, a statement must be *justified, true, and believed* (Platon). Knowledge (*episteme*) is unchanging and independent of opinions (Platon). Nevertheless, Plato allows Socrates to conduct a dialogue which contains the following fragment: “*knowledge equals the correct conception together with an explanation, whereas the inexplicable remains outside knowledge*” (Platon V: Thaitetos; also see, for example, Blackburn 2007, 117). On the other side, Plato defines knowledge (*episteme*) as understanding, as the ability or power (*dynamis*) just to know, that is to understand, what is good (Platon V, Thaitetos; see also Pietarinen 1997, 31, Blackburn 2007, 117, 148). Plato’s main idea seems to call attention to change in all situations and if concept knowledge is unchanging, as he says, this makes no sense. If we take into use the concept ‘understanding’ instead of knowledge, it is easier to receive information and change it to new knowledge concerning change in observed things and processes. Referring to Plato’s dialogues, in new knowledge acquisition there is always some main question or central essence, the main idea, unchangeable as a guiding principle, acting as a ruler of the real knowledge. These rulers date back to previous experiences and things already learned and proven as being true or the idea or theory concerning that object (e.g., Blackburn 2007, 148). As Simon Blackburn says: “Scholars can see the eternality in the wild flowers – not biological properties only” (Blackburn 2007, 149).

In conclusion, it is possible to define knowledge as something just to be understood, not to be explicated, and not to be expressed in words only. Yet, traditionally, established fields of modern Western research and science only accept explicated, predicative, propositional knowledge that is capable of being verbalised and justified. Consequently, the knowledge generated by making things and by created and experienced processes is generally excluded from the concept of knowledge.

A discipline which accepts and values predicative, verbal expression strives to determine the truth of knowledge, but how can such truth find a place in art, craft and design discourses? Of course, we can acquire knowledge by testing materials and structures, by interviewing people, by observation methods and so on, but this gives rise to a number of questions. How can we gather knowledge concerning craft processes and internal feelings? Is this knowledge transmitted by craft processes and subjective expressions doomed to remain outside scholarly truth, as inexplicable? Is the knowledge transmitted by craft attached to the work itself or to its products, its maker or the creative act of making things? If so, how can it be attached to any of these; how can it be extracted, made visible or transmitted? The problem which emerges in this context is the word ‘knowledge’ which cannot have the same meaning as what is called predicative or ‘propositional knowledge’ (e.g., Starszakowna 2000). On the other hand, even within the fields of craft and design, the concept of knowledge should not be any different from that accepted in disciplines in general. The solution is to find methods and concepts suitable for general scientific discussion.

A craftsman or designer wants to express something by his work. It can be expression of her skill, or good taste, or economic or cultural knowledge, or it can be a creative, artistic expression. In particular, she

may have an expressive interest associated with a subjective, internal obligation, and in addition there may be interests linked to the technical realisation and the interpretation of the phenomenon itself. Knowledge resulting from creative thinking and intuition is derived from a person's internal perceptions, experiences and insights. This is qualitatively different from the acquisition of knowledge related to the external evaluation of an object or to the interpretation of or critical reflection on perceptible entities.

The special feature of this kind of knowledge acquisition is found to be the description of the reflected-on experience in such a way that the unique nature of experientialism is preserved as far as possible. If we accept that the purpose of investigative research of processes is to form an understanding of something, then craft works should be understood through perceptions, emotions and intellectual insights as providing glimpses into the past, present and future, rather than providing knowledge of how the objects *de facto* are or were (cf. Greenwood 1993, Scrivener 2000).

How is craft knowledge expressed when dealing with something other than propositional language? As research is traditionally communicated by and in language, we are dealing with a verbal assigning of meanings. Verbal expression has gained so central a role as the medium of presenting knowledge that the world's reality appears identical with the expressions generated using verbal sentences and formulae. And conversely, if something has not been expressed as beliefs formulated in words or symbolic concepts, either because of a lack of skill or of impossibility, it has been impossible to regard this something as true. The question remains: How does verbal expression preserve the unique character of experience, at the same time responding to the collective demand for shared understanding and communication? Language and the use of language may combine experientialism and research orientation, but they can also construct a wall that separates and ossifies the living link between experientialism and research orientation. If the language meant to transmit knowledge is thought to be only propositional, conceptual and capable of being translated arbitrarily into any other language, then we fail to capture experientialism.

The dominant scientific theory – taking Plato's and especially, Aristotle's -- thoughts literally - is the correspondence theory of truth, meaning that truth corresponds to a fact, having a relation to reality (e.g., Russell 1913, 1984, Blackburn 2007). Within this theory the truth of statements is examined by formulating them verbally, and knowledge is expressed as the thesis that a proposition, sentence, statement, belief, theory or some such 'carrier of truth' is true if there exists a correspondence between it and the state of matters in reality (cf. Wittgenstein 1921, Soames 1999). However, in craft and art works we do not only regard truth in the light of the correspondence theory. The assumption here is that in the expressive mode of art, craft and design, knowledge can be represented in other modalities besides verbal statements or propositions.

Therefore, I'll take into use a new concept, expanded knowledge. This enables the understanding of the different kinds of knowledge related to various esoteric – intersubjective – forms of experience. The knowledge related to craft and design works is not only propositional, expressed with words and sentences; rather, we are dealing with a non-discursive or downright "unconscious" knowledge. Expanded knowledge means that all sensations, visual, auditory, olfactory, i.e. taste and smell, as well as all haptic and kinaesthetic expressions are accepted as channels for transmitting knowledge. It consists of several subconcepts, well known but less developed for scientific discussion and methodological solutions.

We employ here the concept procedural knowledge, knowledge transmitted through processes of making things. Procedural knowledge -- or rather, understanding -- includes the execution of single actions and entire chains of actions, or processes. The concept 'procedural' emphasises the gradual unfolding of ongoing processes. One advantage of using this concept is that it can involve all senses, hands-on experience and practice at solving problems or the understanding of the limitations of some specific solutions.



The concept '*know how*' is knowledge of how, what, when and why something is done. This concept is used to describe knowledge required for an ability or skill. The ability or skill must contain knowledge of the world -- or of its own operating environment -- in order to succeed in it. Thus, '*know how*' is skill based on knowledge, or perhaps even an ability that concerns knowledge, such as the ability to read. It can be formulated verbally, but is very difficult to explore by traditional, predicative research methods. It can also be regarded as knowledge of how to behave or act successfully, knowledge that does not consist of being proven true, but of skill. (Anttila 2006, 53–55).

A closely related concept to the previous is '*tacit knowledge*', which is either knowledge related to a skill or what is called maker's knowledge, to be capability of expert performance concerning the means and purposes of some action. The concept of tacit knowledge is considered problematic within traditional research because in order to be communicated, it must be verbalised or made visible in some other way in order to be considered explicit knowledge. (cf. Polanyi 1966/1983, Nonaka & Takeuchi 1995, Collins 2001).

Expanded knowledge includes the concept '*experiential knowledge*' which can only be acquired through certain mental and physical experiences, using skills, sensations etc. It is knowledge that is tacit and known -- things that we know but cannot easily explain to others.

The expanded concept of knowledge also includes '*intuition*', which is usually defined as understanding without apparent effort, quick and ready insight seemingly independent of previous experiences or empirical knowledge (cf. Ross & Wilson (2002), Conway & Ross 2000). In common usage, intuitions lead us to believe in things without being able to articulate evidence or reasons for those beliefs. It seems to be a direct, self-evident, axiomatic and momentary experience different from either perception or sensation, or still more from imagination, memory, discursive thought and ordinary observation in all of its forms.

'*Emotional knowledge*' can be included in the expanded concept of knowledge as being aware of emotions and linking them with given forms of expression, expressing messages aroused by the emotions and understanding complex messages. Parallel to emotional knowledge, emotional intelligence ("tunneäly" in Finnish) has also emerged, defined as the ability to monitor one's own and others' feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions. In this way emotions can be seen as data -- signals about ourselves and our relationships.

### **Intersubjectivity as a condition of intelligible expression**

Particularly interesting is the question of how to communicate all these kinds of knowledge. There we meet the question of *intersubjectivity*. In order to be understood by others, an expression needs to be interpersonally communicated. In the traditional research sense, intersubjective verifiability is the capacity of a concept to be readily and accurately communicated between different individuals and to be reproduced under varying circumstances for the purposes of verification.

Each individual is a subject and must subjectively experience the physical as well as the mental world. Each subject has a different perspective and point of view on various aspects of the world. However, by sharing their comparable experiences intersubjectively, individuals may gain an increasingly accurate understanding of the world. In this way, many different subjective experiences can be combined to form intersubjective experiences that are less prone to individual bias or gaps in knowledge.

If intersubjectivity of this type is possible for verbal language, it must be possible for the language of art, craft and design. This means that all the materials, structures, shapes, forms, sizes and other expressions must be capable of being experienced, but also of being collectively shared and understood.

### The referred concept of meaning as an explanation

How is meaning produced and conveyed in messages that are primarily something else than verbal? The referred concept of meaning implies that the meanings carried in messages are used to refer to other contexts (e.g., Wittgenstein 1921). When Wittgenstein primarily expressed this theory in 1921, he discussed meanings contained in language. But according to the referred concept in a broader sense, objects with all their materials and shapes and sizes etc. can also function as means for communication. Most signs operate on several levels--iconic as well as symbolic and/or indexical, which suggest that sense perception as well as experience analyses may be addressing a hierarchy of meaning in addition to categories and components of meaning. Therefore, here I employ the *referred concept of meaning*, where the craft object functions as a medium for a message. The message itself can be conceptual or it can refer to sense perceptions, previous experiences or memories, or the signs can refer to feelings, impressions, associations, metaphors or other reflections.

In fact, craftsmen and designers often strive for a situation where they can use their works to directly transfer the concepts contained in them to those who view and experience them.

### How to acquire the expanded knowledge: reflection in focus

The concept of *reflection* is central in the expanded concept of knowledge and can combine all the different channels of knowledge acquisition (e.g., Dewey (1933), Kemmis (1985), Boud & al. (1985), Schön (1987), Reid (1993), Johns (1995), Räsänen (1998). There are many definitions of reflection in the literature; most, however, agree that it is an active, conscious process. Boud et al. (1985) define it as a generic term for the intellectual and effective activities in which individuals engage to explore their experiences in order to lead to a new understanding and appreciation. Schön (1987) suggests that reflection is used by practitioners when encountering situations that are unique and when individuals may be unable to apply known theories or techniques previously learnt through formal education.

Reflection can be seen as a process of reviewing an experience of practice in order to describe, analyse and evaluate the practice. It is a strong methodological tool. Reflection enables the practitioner to assess, understand and learn through their experiences. It is a personal process that usually results in some change for the individual in their perspective of a situation or creates new learning for the individual. But, it can be an interpersonal process, as well. The process of reflection is more than a process that focuses “on the head”. It is a positive, active process that reviews, analyses and evaluates experiences, draws on new concepts and ideas, and thus provides an action plan for future experiences.

As forms of reflection, we can take into use both *self-reflections* as a subjective approach, meaning an active reflection using one’s own medium in an outward direction, and *co-reflection*, meaning an intersubjective reflection with an impact on both participants. The third form of reflection, *object-oriented reflection*, is also intersubjective and focuses on a certain object; however, the result has no impact on the subject’s own action, but provides feedback to the maker or performer.

Recent research findings concerning art and craft reflections show very clearly that we are dealing with the expanded concept of knowledge, involving all the knowledge elements previously mentioned. These include not only verbal, propositional knowledge, but also tacit, procedural, and experiential knowledge, intuition, and emotional knowledge. What remains to be discovered is how the three forms of reflection mentioned here are manifested in the phenomena of expanded knowledge, or in ‘crafticulation’. For a study concerned with crafting practice, the challenge does not lie in transcending conceptual language. It lies

in capturing the collective, open and critical nature of the non-conceptual expression (cf. Räsänen 1998; Anttila & Nuutinen 2007).

The representations of reflections, both verbally and with other means of expression, also show that knowledge is transmitted from one work to another. The works can be received and understood in the same way as intended by the author or maker, if the reflections are deep and intensive enough. In other words, the message goes through if the sender and receiver have a serious intent and are sensitive to influences. Research findings give strong support to the referred concept of meaning, where art, craft and design works function as the media for a message, giving support to non-verbal as well as verbal expressions.

Reflective talk contains numerous referential aspects. Besides actual facts, there are many kinds of references, such as associative references, value and attitude references, procedural and contextual references, as well as technological, professional and pedagogical references. Many of these aspects are simultaneously associated with both the context of the maker of the original craft and design work and that of the reflective recipient (Anttila & Nuutinen 2007).

- *Explaining the content of the object and listing facts concerning the object. Contextuality*

In the beginning a number of facts are mentioned, concerning colours, shapes, materials, sizes, techniques etc. This is very clearly the same as the first level in Mezirow's reflection model (Mezirow 1981). There is no interpretation of the object – only statements of facts. Some of the reflections on this level are technological in nature, including references to techniques, materials, constructions and structures. However, separating them from the following stage, *sensual perception*, is difficult, for these facts and perceptions are very rapidly interlinked and intermingled.

References to *contextuality* are reflections incorporating the contexts of both the maker and the recipient, but the works can also be studied in the context of, for example, age, sexuality or values. Some of the observers perhaps consciously link their reflection with a given visual context (such as the range of colours). The works can be reflected on professional contexts as well, or on the pedagogical appropriateness of the techniques used or on the context of the use of the work can be considered. The context is used to assign a particular meaning to the work.

- *Sensual perceptions (what there is to see, hear, taste, smell, touch)*

This stage is followed by a verbalising of direct sensual perceptions. There is a distinction between sensual perceptions clearly relating to the object and the associations based on them. Sensual perceptions are primarily visual, but they include a many auditive, olfactory, haptic and even kinaesthetic perceptions as well. The reflecting recipients often describe the range of colours in the work, with minute observations of nuances, the auditory perceptions it evokes, even perceptions of silence. They spike of the sensations related to the form of the object, of its surfaces, boundaries, contours and delineations. The experience of space could be more or less physical, as could the sensation of movement. Research findings show that fundamentally a work carries knowledge transmitted by sensual perception.

- *Procedural reflection* is associated with the use of sources for ideas, the designing of the work, the various stages of making it, the contemplation of options, the thought processes and the different stages of decision-making.

- *Questioning the message of the object*

In a very early phase of reflection the participants start to ask questions concerning the meaning of the object, its use, the messages included and why and for whom it was made etc. The research findings confirm the hypothesis of capturing meanings involved in art and craft works.

- *Recollections (memories)*

Some of the reflections consist of the contents of memory. the work recalls memories of pleasant situations, of childhood and youth, of using things and so on. These reflections are clearly different from the concept of experientiality as they have to do with the recollection of events, objects, situations etc., and with the experiences acquired at those times. In this way recollections are linked with tacit knowledge which is a huge knowledge potential to be activated in the reflection.

- *Associations, impressions, feelings, metaphors*

The works awaken impressions. Among these, in addition to physical sensations, are various sensual impressions clearly situated on the level of mental images – that is, not perceived in reality – there are various haptic, kinaesthetic, visual, olfactory, spatial, light- or shape-related etc. impressions on the mental level. Associations and mental images are conveyed through metaphors and parables. These include, for example, associations with nature, colours and moods.

- *Emotional reflections*

Feelings aroused by sensations define all kinds of relations between the person herself and the environment and other people. There are feelings such as delight, aggravation, relief and devotion. Memories linked with previous conflicts especially arouse strong emotions. Emotions of all kinds create meanings for objects and therefore they are very important in knowledge acquisition.

- *The reflection brought forth a broad range of values and attitudes.*

All values and attitudes are closely associated with emotional elements. Sensations and rational thinking bring up facts concerning the object, but emotions first arouse attitudes and after that establish values.

- *Intuition*

Intuition is very often used as some kind of resolution in a chain of thought, and it also seems to be the foundation of the aesthetic or ethical or moral insight in craft and design work. It can be regarded as a person's immediate ability to perceive the essence of an object, its characteristic features and its meaning, independent of sensual perception. This emerges as a sudden characteristic identification of the phenomenon.

## **Experientialism as an empowerment factor of crafticulation**

Reflection is strongly linked to the experientialism aroused by the works. Here, experientialism does not mean concrete memories or mental images of previous similar perceptions, but experientialism created internally in the observer's mind. Experientialism is associated with the experience of power and strength in the work; emotional experiences; experience of the self, one's own professional weaknesses or strengths, of womanhood, nightmares and threatening images; and the experience of more or less aesthetic environments and the time dimension in all procedural processes (see: Anttila & Nuutinen 2007).

## Conclusions and discussion

As a whole, acquiring knowledge of and understanding art, craft and design objects and the work processes themselves are based on a very broad range of reflective actions. Knowledge can be transmitted through diverse different channels and can be weighted in different ways. Still, all craft researchers have a great challenge to develop new valid methods for this knowledge transmission. It is not enough to speak in terms of reflective actions or reflective speech only. In what way can all sensations, internal feelings, experiences and other elements of expanded knowledge be recorded and externalised so that a valid interpretation is possible?

Returning to Plato, in ancient Greek culture three main factors governed the rules for civilised mankind: nature, habits and reason. Nature is a challenge to take care of and to benefit from, habits contain all kinds of mutual agreements, and the reason is the ability to think, understand and draw conclusions. Laws were founded by reason and rational thinking, but Plato disagreed that one should be tied to existing laws only. Plato pointed out the chance to flee from permanent and even accepted habits to create something new, to catch the real ‘good’ and the world of ideas.

As a whole, the concept of expanded knowledge gives support to how Plato saw the world as consisting of three spaces: The first is, the *cognitive space* framed by all kind of laws, based on reason and knowledge. The second is, the *aesthetic space* kindled by its relation to nature and to the cultural, man-made environment consisting of harmony and contradictions. The third space is *the ethical one*, framed by striving to take care of other people and all creation, as well as our common duties for humanity (Baumann 1993, 145–1285).

Traditional Western science has been directed almost only at the reasonable and cognitive space in order to increase and heighten the amount and value of empirical knowledge. The relation between fact-oriented knowledge, the human psyche, beauty and morality has been left almost without consideration. The expansion of science has not expanded the aesthetic and moral aspects in the world. Young Finnish craft researchers Miia Collanus and Minna Matinlauri speak in metaphoric terms - when using a landscape metaphor and recommending sensations of landscape, in addition to aural and olfactory landscapes broadly used in other art sectors. They propose this new metaphor be taken into use in craft education (Collanus & Matinlauri 2007, 6-7). I agree with this view, but want to expand it to the direction of an expanded knowledge landscape, framed by the necessary facts and skills, by human sensations, feelings, memories, mental images and intuition to be able to experience the whole human environment as completely and totally as possible.

## References

- Airaksinen, T. 1994. Johdatusta filosofiaan. Helsinki: Otava.
- Anttila, P. 2003. Challenges for conceptualisation of Collaborative Design. Congress papers, LEARN Congress, Helsinki 05 May 2003.
- Anttila, P. 2006. Tutkiva toiminta ja ilmaisu, teos, tekeminen. Hamina: Akatiimi.
- Anttila P. & Nuutinen, K. 2007. New methodological challenges for the Art Pedagogic: Reflection as basis for the creative expression. Manuscript for Research report. University of Art and Design Helsinki. Department of Art Education.
- Benson, Hugh H. (ed.). 1992. Essays on the Philosophy of Socrates. New York: Oxford University Press.
- Blackburn, S. 2007. Platonin Valtio. (Orig. Plato's republic – A Biography). Jyväskylä: Ajatus Kirjat.
- Collanus, M. & Matinlauri, M. 2007. Hyppy tuttuun ja askel uuteen: moneuden tiloja käsitönopeutukseen. Tekstiilipettaja 3/ 2007, 6-7.
- Collins, H.M. 2001. Tacit Knowledge, Trust and the Q of Sapphire. Social Studies of Science, pp. 71-85 31(1).
- Conway, M. & Ross, M. 2000. Getting what you want by revising what you had. Reprinted in U. Neisser & I. E. Hyman

- (eds.), *Memory observed: Remembering in natural contexts* (pp. 149-163). New York: Worth. Article originally published in 1984.
- Dewey, J. 1933. *How We Think. A restatement of the relation of reflective thinking to the educative process* (Revised edn.), Boston: D. C. Heath, p. 9.
- Greenwood, J. 1993. *Reflective Practice: A Critique of the Work of Argyris and Schon*. J. Adv Nurs 21: 1044-1050.
- Johns, C. 1995. *The Value of Reflective Practice for Nursing*. J. Clinical Nurs. 4: 23-60
- Kahn, C. H. 1996. *Plato and the Socratic Dialogue*. Cambridge: Cambridge University Press.
- Kemmis, S. 1985. *Action Research and the Politics of Reflection*. In: Boude, D. et al (1985): *Reflection Turning Experience into Learning*. London: Kogan Page.
- McDowell, J. 1973. *Plato's Theaetetus*. Oxford: The Clarendon Plato Series.
- Mezirow, J. 1981. *A Critical Theory of Adult Learning and Education*. Journal of Adult Education 32 (1), pp. 3-24.
- Nonaka, I. & Takeuchi, H. 1995. *The Knowledge Creating Company*. Oxford: Oxford University Press.
- Polanyi, M. 1966. *The Tacit Dimension*. London :Routledge & Kegan Paul. Reprinted 1983.
- Platon. 'Teokset: Kolmas osa. Faidon; Pidot; Faidros; Parmenides; Theaitetos'. Suom. Marja Ikonen-Kaila ym. 1999. Helsinki: Otava.
- Reid, B. 1993. *But we're doing it already. Exploring a response to the concept of reflective practice in order to improve its facilitation*, Nurse Ed Today 13, pp.305-309.
- Ross, M. & Wilson, A. E. 2002. *It feels like yesterday: Self-esteem, valence of personal past experiences, and judgments of subjective distance*. Journal of Personality and Social Psychology, 82, pp. 792-803.
- Russell, B. 1913; 1984. *Theory of Knowledge: The 1913 Manuscript*; London: George Allen & Unwin.
- Räsänen, M. 1998. *Building bridges. Experiential art understanding. A work of art as a means of understanding and constructing self*. Helsinki: UIAH.
- Schön D. 1987. *Educating the Reflective Practitioner*. San Francisco: Josey Bass.
- Scrivener, S. 2000. *Reflection in and on. Action and Practice in Creative-Production Doctoral Projects in Art and Design. The Foundations of Practice-Based research. Proceedings of the Research into Practice Conference 2000*. UK: University of Hertfordshire. <http://www.herts.ac.uk/artdes/research/papers/wpades/vol1/index.html>. Accessed 02 April 2007.
- Soames, S. 1999. *Understanding Truth*. Oxford-New York: Oxford University Press
- Starszakowna, N. 2000. *The concept of Knowledge. A refereed journal for research in art & design Vol 2002*. <http://www.herts.ac.uk/artdes/research/papers/wpades/vol2/norma.html>. Accessed 02 April 2007.
- Strawson, P.F. 1997. *Entity and Identity*. Oxford: Oxford University Press.
- Wittgenstein, L..1921. *Tractatus Logico-Philosophicus*. London: Routledge. Reprinted 1961.

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## THEN AND NOW: HOW OUR SPECIES' PAST HAS PREPARED HUMANS TO MAKE AND RESPOND TO THE ARTS

It is an honor to speak at this CRAFTiculation conference. When I first saw the name, I thought of the word it is derived from, ARTiculation. Very clever! And my own thinking about art and craft, which is based on Darwinian evolution, suggests that there is little, if any, difference between the two. When I speak today about art or “the arts”, I mean to include “the crafts” as well as arts such as music, dance, literary language, and performances of all kinds as well as of visual art. The examples I’ll show are from mostly non-Western and pre-modern societies, when art and craft were one.

I shall emphasize three main ideas and describe the evidence for them. Obviously in a brief talk I cannot go into very much detail. That detail you can find in my books. The important message I want to convey is that these claims, frequently asserted from general life experience or common sense, can be established from evolutionary theory, showing that humans are prepared by their biology to make and respond to the arts. And further, using the arts in schools and communities for individual and cultural renewal—one of the themes of this conference--makes sense from a biological point of view.

### **First main idea. In pre-modern societies, the arts have been integral to material and spiritual lives.**

In other words, the arts are intrinsic to us as human beings. There is no human society anywhere that lacks arts. The arts evolved because they were adaptive: they helped us to survive and reproduce, as evolutionists would say. [Slide shows Bogeya men, in Papua New Guinea, adorning themselves in preparation for a singing].

The earliest indications of arts in our species are such things as carved cupules (perhaps 290 thousand years ago [kya]), red ochre for paint (100kya +), shell beads (77kya at Blombos in South Africa), and engravings and paintings on rock and cave walls.

We cannot observe the people who made shell beads and rock markings or who decorated their bodies and possessions, but if we consider premodern societies today (whose members’ lives resemble ancestral lives more than do ours) we find that the primary context for the arts is in ritual ceremonies. It is likely that ceremonies, with dance and music, were performed at the sites with designs or depictions shown here.

[Slide shows Early art: Red Knob Cupule site in New Mexico, Lascaux (18kya)]

Interestingly, there is no ceremony without arts; ceremonies could be called “*a collection of arts*”—song and other music, literary language, dance, and dramatic performance, in addition to visual artifacts, costumes, masks, and other panoply. Without arts, there is no ceremony. [Slide shows Kore initiation of Bassari, southern Senegal, cartwheel masks; Navaho Red Ant Medicine way ceremony, 1992—for gastrointestinal problems, rashes, rheumatism, caused by angering red ant spirits; prevention as well as cure; 2 days of chanting, singing, prescribed movements and actions].

One adaptive result of ceremonies is that *they relieve anxiety and stress*. Ritual ceremonies occur at times of transition between one state and another. They are betwixt and between, described by anthropologists as “*liminal*”, from the Latin word for threshold. This is clearly to be seen in rites of passage where the subject of the ceremony is between childhood and puberty (as on the left), unborn and born (on the right),



virginity and marriage, or adolescent and adult. Slide shows Krobo girls' initiation to womanhood [eastern Ghana]; American Southwest rock art image of childbirth. One modern rite of passage to adulthood that we are familiar with is from school goes to graduates. Other ceremonies deal with transitions between want and plenty (finding food), illness and health, insecurity (before a hunt or battle) and security (being safe).

Liminal occasions are times of anxiety where things can become worse or better. By having something to do at uncertain times, individuals and groups feel more confident that they will successfully traverse the transition, will be safe, will become well, will find food, will adequately be an adult man or woman. By relieving anxiety, the art-saturated actions in ceremonies contribute to the health and longevity of their participants. And it is well known that stress negatively affects metabolism, growth, sexual function, heart function and the immune system. An activity that reduces stress is probably adaptive.

A second adaptive benefit of the arts in ceremonies is that *they lead to group bonding and concord*. The physical coordination of engaging in patterned, rhythmic activities together provides real physiological and neurological concord that is felt subjectively as psychological/emotional concord. As well as being healthier, individuals in groups that performed art-filled rituals would be more coordinated and cooperative than those that did not—thus leading to increased survival and reproduction. [Slide shows Kairuku nut ceremony, Gogime Village, Chimbu Province PNG]. These adaptive benefits of the arts as they are found in ritual ceremonies everywhere in the world indicate that artful behavior has evolved to be integral to our material and spiritual selves.

**Second main idea. Receptivity to art-like behaviors is present in all infants from the earliest weeks of life.**

[Slides show newborn infant in delivery room & mother-daughter gazing at each other's faces a few minutes later] It might seem surprising to say that babies come into the world ready to engage in art-like behaviors with their caretakers. Let me describe how this is so.

Despite their physical helplessness, newborn infants are very socially precocious. As you see in the slides, they respond to human voices and faces more than to any other sound or sight. This makes them ready to interact with the people about them from the moment they are born.

People all over the world behave to infants differently from the way they do to adults. [Slide shows four adult-infant pairs: Yanomami, Eipo, Trobriand, San]

Vocally, we speak slowly in a high-pitched, undulant, soft voice or with tongue clicks. Our talk and other sounds to babies is simplified and highly repetitious with exaggerated vocal contours. Visually, we make funny faces (wide eyes, raised eyebrows, open mouth, wide, sustained smiles), head movements (bob backward, nod), and use mutual gaze (even with a newborn). Kinesthetically (i.e., using body movements), we pat, stroke, sway, hug, and kiss.

Interestingly, these behaviors to babies are derived from expressions that we use in friendly interactions with other adults: we raise eyebrows (flash) in greeting; smile, bob and nod to and pat, stroke, hug, and kiss our loved ones. The difference is that with infants we regularize, exaggerate (make slower, higher, more undulant), and repeat these behaviors. [Slide shows Papua New Guinea Grandfather and granddaughter]

What is of interest and importance here is that we do not teach babies to respond to these antics. They teach *us* to perform for them. Infants come into the world wanting this kind of interaction and they reward us with their kicks, wriggles, smiles, and coos when we deliver. They *don't* wriggle and smile if we talk to them as I'm talking to you now.



Although psychologists have found many benefits to babies of the adult-infant interaction—contributions to later language learning, cognitive development, emotional self-regulation, bonding—there are two special points that are of interest to those of us who are interested in the arts.

First, *the “operations” that adults perform on their babytalk vocalizations, facial expressions, and head and body movements are inherently “aesthetic.”* No one has pointed this out before. They use formalization (stereotypy or regularization), repetition, exaggeration, elaboration, and surprise. One can call these “aesthetic” or, if you will, “proto-aesthetic.”

Note that these operations are what artists in all media do to the materials of their art: to the fibers, paint, clay, wood, paint, surfaces, shapes, colors, motifs, tones, chords, rhythms, body movements, words, phrases—in visual art, architecture, music, dance, poetry, and so forth, in order to attract attention, sustain interest, evoke emotion, and reinforce concord. The fact that infants are sensitive to these operations from their earliest weeks indicates that these receptivities are in place as potential responses when they are used in the arts.

Second, *psychologists have found that in these interactions parent and baby together coordinate themselves in time.* They respond to one another in a split-second anticipation of “social contingency”, reacting to each other’s visual, vocal, and gestural signals. This sort of behavioral-neurological attunement between adult and infant is the basis for later adult interactions that involve coordination and turn-taking whether these be in conversation, lovemaking, or performing with others in music, dance, and other arts that take place in time.

I don’t have time today to retrace the evolutionary path that led to the development of this coordinative interaction between mothers and infants but it has to do with the immature state of human infants at birth, a result of two conflicting evolutionary adaptations that were occurring about two million years ago. The first trait is upright walking, which necessitated, among many other anatomical changes, a narrowed birth canal in females; the second trend was enlarging brain-size, which meant larger infant heads, creating a dilemma at the time of parturition. In our remote ancestors, over hundreds of thousands of generations, infants had to be born in an increasingly early, increasingly helpless state, thus requiring a long period of almost continuous care after their birth. Emotional bonding has been a way for mothers to be willing to take care of demanding, immature babies for weeks, months, and years, and what I have called aesthetic operations (formalization, repetition, exaggeration, elaboration, and temporal coordination) were, and still are, the means to this end.

**Third main idea. In addition to reducing stress and building concord, the arts also address and satisfy important psychological needs.**

The needs I am concerned with and will describe next were generally satisfied by life as lived in premodern societies but are often neglected today in modern and postmodern contexts. Let’s take a look at the differences. (Because we cannot observe our ancestors, we have to extrapolate from lives of contemporary hunter-gatherers whose ways of life are closer to ancestral societies than ours). [Slide shows Donga from Cameroon] Members of such groups

- (1) had to find and prepare their own food, every day (“subsistence economy”),
- (2) knew everybody (and were known by) everybody they associated with,
- (3) identified themselves as members of a family or kin group and perhaps also a larger band,
- (4) shared ideas about the way the world was—they had uniformity of belief,
- (5) had roles and identities that were assigned and affirmed by the group,
- (6) had lives that were permeated by religion, ceremony, and the arts, and
- (7) had to make everything they needed and used from natural materials with their own hands.

Their psychology evolved to suit this hunter-gatherer way of life

If one looks at a pictorial diagram of the more than four million years during which our ancestors lived as hunters and gatherers and compares this vast timeline with the brief period in which humans have lived in large, complex, pluralistic societies, it is obvious that there has not been sufficient for our psychology to have changed very much to completely adapt to the peculiarities and great contrasts that characterize modern lives:

- (1) We have a money economy, which means we work so that we can buy what we need and often so that we can consume and accumulate a great deal;
- (2) Our societies are impersonal: we live amidst many strangers;
- (3) Society is organized as states with leaders, not kin groups;
- (4) Societies are diverse—many ways of life and belief systems co-exist;
- (5) Individuals have to choose a role in life—an occupation; usually we occupy multiple roles;
- (6) Science has replaced religion as an explanatory scheme for why things are as they are;
- (7) We don't have to do a lot of physical work,
- (8) or obey the weather and seasons; and
- (9) As religion and ceremony have retracted, the arts are no longer an integral part of everyday life.

In subsistence societies, there is a great deal of conformity, tedium, and hard work. Most of us today would not want to exchange our modern lives for those (and I am not recommending that we try to do so). However, if we had been born into such a life and knew nothing else, it would be full, interesting, and rewarding. The proof of this is that we are here today: if our ancestors had not found life worth living they would have jumped off the nearest cliff and not lived to engender the people who in turn engendered you and me. Although material comforts would be nothing like what we take for granted, I suggest that in such a life we would have psychological comforts that elude many people in modern and postmodern societies. I will mention five of these elements of what I have called “Pleistocene Psychology.”

The first, *mutuality*, the need to be emotionally close to another person, is the foundation or fount from which the others emerge. It is first expressed, as I've described, through the communicative exchanges of adults and infants, which as I showed are based on visual, vocal, and kinetic elements that can be called proto-aesthetic.

In a small-scale society, this mutuality with a caretaker moves seamlessly into *belonging* to a group, finding and sharing *meaning* with others, developing a sense of *hands on competence* to deal with one's world (learning by watching and doing) and, finally, demonstrating that one cares about the important things in one's life—what I call *elaborating* and can be called creativity. In my work I have also called it “making special.”

Over hundreds of thousands of years, these needs were addressed and satisfied particularly well in ceremonial contexts that surround people from birth and throughout their lives, as I've described. [Slides show Trobriand *masawa*; Asmat men erecting *bisj* poles]

Today most people create as best they can the securities that satisfy their Pleistocene psychology: in a large anonymous complex society we have our family, friends and in-group who share our ways; we take on roles as student, adult, parent, wage-earner, contributor to society; as individuals we find or create a life philosophy; despite purchasing our food and other material goods, we use our hands and bodies in various satisfying activities.

However, not everyone finds these individual achievements straightforward or automatically provided by society. Some children do not grow up with a parent, family, or group that enables mutuality or the feeling that they belong. Some of us look around at society's emphasis on materialism, hype, and hypocrisy

and feel alienated—for such people, life lacks a sense of meaning. For some, modern life is impossibly complex and competitive: they do not find a satisfying place in society or rewarding work; they lack a feeling of competence, which includes feeling that they have control over what happens to them. In a secular, complex, impersonal age, the arts—elaborating—are not an automatic avenue through which one can be connected with primeval psychological and emotional satisfactions. Yet through artful activity, these needs of Pleistocene psychology can be addressed.

*The arts and Belonging* [Slide shows Bolivian children dancing]: The interpersonal coordination and bonding rooted in the protoaesthetic mutuality of infancy remain to help us join with others as we participate in the arts. We can experience universal themes together and be reminded of the enduring and important concerns that all humans share.

*The arts and Meaning* [Slide shows work by Mustafa Skopljak made in 1993 from debris, during the Siege of Sarajevo]: Through the arts—one's own art or the works of others—people gain a sense of life's meaning by articulating their personal experience, sharing others' experience, and gaining new perspectives.

*The arts and Hands-on Competence* [Slide shows quilt]: Participating in the arts manually, bodily, and mentally can contribute to a sense of hands-on competence. One uses hands, body, and mind in making something exist that did not exist before. With regard to competence, I want to show you an image of a work that I first learned about this past July. It is a tea set made in 1932 by a bored schoolboy, while he was sitting in class. This twelve-year-old boy grew up to be Bill Reid, one of the most celebrated Native American artists or "First Nations" artists, as he was from Canada, whose works in many media can be seen in the recently-opened Bill Reid Center in Vancouver, which kindly provided this image that I am showing in a lecture for the first time today. It may look rather ordinary, [Slide shows *Bill Reid: Tea set, blackboard chalk, nail polish, circa 1932*] until one realizes that it was carved from *blackboard chalk* and then painted with his sister's red nail polish. The entire set fits into a matchbox! It is a marvel and also marvelous that it has remained intact for 76 years. Apparently he made others that have perished. I like to think that long before he knew that he was an artist, this boy found pleasure and a sense of self-worth in using his skill to make these amazing little objects. [Dimensions of these objects: Tea pot: tip of spout to end of handle, 2.2 cm; Cream jug: 0.7 cm x 1.1 cm; tip of lip to end of handle, 0.7 cm dia; Cup: 0.7 cm. x 1.0 cm. handle to handle; dia of cup portion: 0.3 cm. Bill Reid Foundation Collection #147. Gift of Elizabeth (Peggy) Kennedy.]

*The arts and elaborating.* By elaborating experiences that are of significance to them, people are given the opportunity to show themselves and others that they care. As we saw in pre-modern societies, here on September 11, 2001 the arts became "something to do" to address uncertainty and anxiety, as well as to express and share with others personal distress and grief. [Slide shows Seattle Center Fountain, after 9/11]. It seems that when people elaborate or make special—when they make art—it is about the things they care about. For example, the four innate species needs (belonging, meaning, competence, and elaboration) are everywhere expressed in the arts of holiday decoration. [Slide shows Christmas decorations in New Jersey]

## Conclusions

In conclusion, let me summarize my three main ideas:

1. In pre-modern societies, the arts—as developed in ritual ceremonies — have been necessary to material and spiritual lives. They relieved stress and anxiety and joined individuals in common cause to address common problems. [Slide shows Gélèdè dancing in Nigeria]
2. Babies everywhere, for reasons that have to do with their survival many hundreds of thousands of years ago, are born prepared to respond to art-like behaviors in visual, vocal, and movement modalities. We can say that the arts are a universal part of human species nature. [Slide shows cute baby]
3. Today as in the past, the arts can address and satisfy important emotional needs for belonging, meaning, competence, and elaborating in modern societies whose way of life often goes against our evolved Pleistocene psychology. [Slide shows people at Vietnam Veterans Memorial, Washington, D.C.]







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## CRAFT-BASED DESIGN AS A MEANS TO ARCHITECTURE

### abstract

*The role of the contemporary craftsman is in flux. He is a stimulant for not only our collective memory, but also our fast food society and disposable culture. Amongst the contemporary congestion of excess, variety, perpetual discount, and second life, the crafted artifact is rarely sought nor its power recognized. John Doe is no longer prepared to celebrate the dance that accompanies craft. His field of vision does not include the presence of craft. The value of the power has been superceded by some omnipresent something with a hyperbolic nature that persistently steals time and demands attention.*

*While this is perhaps a bit of conjecture, at the same time it is the root of my relations with innumerable young architecture students. I conduct architecture design studios based on making governed by three criteria, one of which is craft. We build, draw, interact with tools and materials, follow our hearts, our dreams, and the laws of physics.*

**keywords:** *craft, education, making, Antonio Gaudi, architecture*

### Prelude

The day before we gathered to celebrate the 2008 International Conference of Craft Science and Craft Education hosted by the University of Helsinki, there was a tragedy worthy of reflection. As we so conveniently traverse the planet to share and exchange ideas and perspectives at events such as Crafticulation, the smallness of our planet is easily discerned. This Global Village we now inhabit has instant access to both positive and negative influence from every corner of our planet. The September 23 shooting at the Kauhajoki Vocational school reminded us all of the urgency of education. As craft educators we spread the gospel of kindness and beauty to promote the construction of a happier and caring society. Despite our efforts we find such tragic irony on college campuses all over the globe. Maybe we should speak louder, in as many languages as we are able and seek more diverse audiences as often as we can? Our educational position has never been more important to the human condition as it is today. May the good will and empowerment of craft and our relation to it flourish into the future.

### |latiit(yoōd|

The renowned Catalan architect from Barcelona, designer and artist Antonio Gaudi said, ‘la originalidad es volver al origen’ — ‘the originality is to go back to the origin’.[1] We know that time in its infinite wonder is ultimately *the master*[2] and that it is at least a two-way street in that we are able to both remember and to dream. We also know that sustaining a meaningful temporal relation is an important arrangement for a craftsman as it provides a datum from which she can act - meaningfully. As Gaudi suggested, meaning is connected to the origin - the origin of awareness, awareness of being human, of feeling the blood pump in ones veins. The memory of craft has a lineage of corporeal contact. It is the retention of a physical legacy of





Fig. 1 La Pedrera (Milà house) by Antonio Gaudí

productivity over an expanse of time. We are physical creatures with an amazing capacity to forge our way through technology to stimulate our human nature.

Our occupation of time today is more complex than it has ever been as it tends to be both compressed and elongated simultaneously. Gaudí's time is not time visited or revisited; studied or reflected. It is time spent - as we so often say today – real time. Gaudí's reminder is not an account of historic details or a particular cultural diaspora, because the objective worthy of emphasis is to transcend the intellectual dimension and rely instead on a kinesthetic prowess that may be concealed somewhere in reserve and susceptible to atrophy. The proposition is to feel what it means to be human by engaging an act of making.

The origin as mentioned by Gaudí also has nothing to do with nostalgia. This interaction with time is not a temporal displacement returning to a bygone era. It is persistently alive in the immediate present. It is about the responsibility of sustaining

the awareness of our collective potential. It is latent energy awaiting attention. The potential is persuasively persistent yet dangerously threatened. If we do not pay close enough attention or become distracted as we navigate our way through our busy lives, the crucial continuity is in danger of being severed. A disconnect from the origin would result in unfamiliar territory leaving the things we do and even worse the things we make less real than they could be. In our schools and universities in every corner of the universe, Craft deserves a place in the curriculum. It is crucial to the health of our future and our humanity.

## Education

As a design studio teacher in a college of architecture, I often stand on a line between disparate aspirations, expectations, desires, passions, understandings and especially, attention spans. The distinctions are ideal for *education* because the reconciliation always results in an attitude change of one kind or another. If the line did not delineate a difference, education might be more difficult. We can consider education to be the development of an attitude; an attitude in a positional sense as in the orientation of an aircraft or spacecraft, relative to the direction of travel.[3] Education as a function of direction becomes a process of reorientation. If there is no directional shift, there is no change and consequently no education. Academia delineated as such is certainly analogous to the distinction between the world of crafts, where makers take pleasure in producing objects whose worth extends beyond their immediate usefulness and on the other hand, the world of the trades and professions, where workers provide services or products whose prime aim is to satisfy the needs of their clients.[4] Catering to the later of the two scenarios, the university is in danger of devolving to the calculable depths of a technical school having as its goal, the production of an employable work force. The reasons this might be the case are numerous, but one in particular is that “satisfactory products and services” are relatively easy to produce, while on the other hand the identification of “a worth extending beyond immediate use” although plausible, is not as easily measured nor accomplished.

Rose Slivka tells us in her essay, *The Persistent Object* that the Craftsman is a man of eminence, making objects to emanate power and magic (from its original Saxon form *kraft*, meaning power and strength) and invested all tools of utility with this presence. All objects were symbols of power no less than

utility.[5] The classrooms I manage are design studio environments. They are havens for experimentation and do not have a technical agenda because the mission is clearly beyond technology. My studios celebrate the space of time as an opportunity to dwell meaningfully in the unknown so as to eventually render a discovery. The discovery is a surprise because it represents what was previously unknown. Engaging studio activities with the sensibilities of a craftsman facilitates such a journey. With no apologies we craft our way to understanding. It is our way of sustaining a meaningful reliance on tools and materials. As every craftsman knows, processes of making replace the insistence of intention. It is the way we express the spirit of craft in the guise of design.

The object of craft sustains the reality of human rhythms and being. This is the essential nature of the pure object, its function and art, in its true and most contemporary sense. Throughout their long history, crafts have produced useful objects, which are later considered fine art. Time has a way of overwhelming the functional values of an object that outlives the men who made and used it, with the power of its own objective presence - that life-invested quality of being that transcends and energizes.[6] If intentional, the absence of utility can be a gracious assistant in an academic design studio. Without function compromising attitude and promoting preconception, a designer can pay close attention to the untainted objective presence of what is being designed. Pedagogically eliminating utility is an ideal method of overcoming preconceptions as it facilitates an attitude of invention over convention. It can help an inexperienced designer overcome the obvious and explore the possible. Design education has innumerable obstacles needing attention in these contemporary times. A craft emphasis in the studio satisfies many of these needs by offering a clear and tangible agenda. The enduring role of craft is as an essential counterpoint to the excesses of capitalism, which devalues the material world to mere 'stuff' for either consuming or wasting. [7]

### A fundamental lesson

The academic delineation mentioned earlier separating the teacher from the students quite naturally sets the stage for a valuable lesson. Design is persistently threatened by preconception or in other words, ideas are often mistaken for designs. In reality there is a keen distinction between the recognition of an idea and a design. There is without a doubt an important relation between the two entities, but they are not synonyms. Generally speaking, design is what one might do with an idea. Most of the time the idea or preconception is savoured by the young aspirant designer because it magically arrives as a brilliant epiphany and is completely painless in its presentation. We are obligated to confront this misunderstanding because even the industry celebrities contribute to its fabrication. The contemporary French Designer Philippe Starck explaining how he designed one of his most commercially successful chairs, the Dr Glob says, "I designed it on a flight to Tokyo between sitting down and fastening my seat belt." He continues by saying, fortunately I have a faithful tribe who help me in spite of everything, and transform my ideas into reality." [8] I am obliged to say that Philippe's use of the word *design* is lost in translation. Design, which

I like to think of as that transformative activity performed by Starck's faithful includes not only specifying the path to production, but also refinement of the idea as an acknowledgement of opportunities. The design process requires so much time and energy that a normal eighteen-year-old college student usually has not



Fig. 2 Dr. Glob Chair  
designed by Philippe Starck,  
1988

the disposition nor patience necessary to endure the venture. A preconception, regardless how extraordinary it may seem is delivered complete and ready to eat - no baking necessary. What the naïve designer does not yet know is that the point is - to bake, which includes adding the yeast and the raisins, whirling the spatula and all the other construction tools necessary to provide nourishment. The activity dictates design. Design is best understood as a verb expressing action making the stasis of a preconceived conclusion or even a divine intervention the first obstacle an undeveloped designer must overcome.

According to Paul Pfeiffer, a digital media artist we would not usually associate with being considered a craftsman, craft is about fabricating a relationship with a material. [9] I understand his reasoning to include the companion tools used to interact with a material because with the digital arena in which he works, there is little material to manipulate other than binary code. He says that craft is about discovering what materials (and tools) will do, despite our will. He advocates engaging the activity of making without preconception for the sake of discovering an unknown that will inevitably transcend the will of the operator. When we succeed in surrendering our wilful imposition, we consistently find the results more interesting and certainly more appropriate than what our will might have intended. Pfeiffer provides us all with a crucial lesson in what it means to be a craftsman/designer. He reminds us that it has little to do with possessing a brilliant idea and bringing that idea to fruition. It has more to do with residing in uncertainty, suspending preference and devising a way to discover a means to clarity. It is a form of respect for the opportunity to engage the activity and embrace human potential. As it turns out, the craft/design does not necessarily lie in the product. It is rather the time invested in the process that reveals the product. While some refer to this process as creativity, I choose to think of it as the rhythm of life that results from a respectful coexistence with time and material. Craft and design both coexist well in time.

As an act of making - craft is, an integral ingredient of the human condition. It carries a persistent reminder of being human. An interaction with tools and materials is what it feels like to be human. Our humanity can at times be an uncomfortable situation, but it is in the discomfort we feel alive. Wielding the tool and effecting the material overcomes the discomfort and guides us through the pleasantries of physical activity. Anything less is merely an illusion - a cerebral misunderstanding. Physical engagement in a creative process is a human phenomenon and by virtue of our relation to this biosphere we all deserve the privilege of being included in the event. Craft is fundamentally encoded in our DNA. If the gene for active creativity has somehow been repressed or misplaced, these words can be a reminder that acknowledging the fact will potentially suspend any undeserved atrophy.

## References

1. Borges, Adélia. Design For a World of Solidarity, The 2007 Craft Victoria Annual Lecture pg 12. <http://www.craftculture.org/world/aborges1.htm>
2. PSALM 123, Behold, as the eyes of servants look unto the hand of their masters, and as the eyes of a maiden unto the hand of her mistress; so our eyes wait upon the LORD our God, until that he have mercy upon us.
3. *attitude* (y) o d | noun • a settled way of thinking or feeling about someone or something, typically one that is reflected in a person's behavior : *she took a tough attitude toward other people's indulgences* | *being competitive is an attitude of mind* | *differences in attitude were apparent between ethnic groups*.
4. Murray, Kevin, Symmetry, Crafts Meet Kindred Trades and Professions, catalogue essay, 1994.
5. Slivka, Rose. "The Persistent Object" *The Crafts of the Modern World*, Horizon Press, New York, 1968.
6. Slivka, Rose. "The Persistent Object" *The Crafts of the Modern World*, Horizon Press, New York, 1968.
7. Murray, Kevin. The keynote address for a conference looking at the role of material arts in contemporary society, "The Fundamentalist urge in contemporary ceramics" pg 13.

8. Rees, Helen. *Patterns of Making: Thinking and Making in Industrial Design, The Culture of Craft*. (Manchester University Press, Manchester and New York, 1997).
9. Abrams, Harry N. *Art: 21 No. 2 : Art in the Twenty-First Century*, companion volume to the second season of the Emmy-nominated PBS series (HNA Books Edition: 1st 2003).

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## CRAFT-BASED DESIGN TO INDUSTRIAL DESIGN THE ARTISTIC OUTPUT OF DORA JUNG

### abstract

*Finnish textile artist Dora Jung (1906-1980) developed the old and slow damask weaving process in accordance with her own artistic goals. Her career which lasted for 50 years, gained respect and international recognition. Dora Jung was the first Finnish textile artist to collaborate with a textile factory. However, industrially manufactured textiles were only a small part of her artistic output. She is also known as an innovator with church textiles and her works have been manufactured for monumental wall textiles and curtains. Dora Jung names some of her textiles as turning points in the development of her damask technique and picture compositions. She used a harness-loom in her own weaving workshop but also held in regard an understanding of the principles of jacquard-weaving process. In the article I will compare some of her unique designs to those of her designs used for industry. Did her plans, working methods or the textile quality change in these different design products? She herself has described her work as craft-based design.*

**keywords:** Dora Jung, damask, craft-based design, industrial design, weaving

### Introduction

Dora Jung was among the first textile artists to graduate from the department of textile art in the Central School of Arts and Crafts in 1932. In the year of her graduation she founded a company of her own called *Dora Jung Textil*. (DM, DJ arc., curriculum vitae) Dora Jung began her work by designing and producing consumer textiles for homes and public buildings. She produced these textiles throughout the whole of her 50-year-long career. In addition she had special collaboration with Oy Tampella Ab for some of her linen damasks and also half linen table textiles. Tampella was a company oriented to weaving fabrics, especially linen damasks. It was founded in 1856 and continued operating until 1977. Dora Jung was also a well-known and respected designer of paraments in addition to monumental textile works and curtains.

What was special about Dora Jung was that even though she had been a textile artist since 1930, she very seldom wove by herself. She extended her workshop after three years so that professional weavers could weave textiles of her designs. Even during her student years, Dora Jung was interested in damask since it gave her the possibility to use patterns on fabrics. She developed and used this method all her life. According to the articles written in her time, she created her *own* damask technique and the *dorajung-technique* is spoken of (Leppänen 1983,9); in addition to a perfect control of this difficult method. As early as 1938 Dora Jung's teacher Arttu Brummer wrote: "*In the history of our weaving art one can truly speak of the Renaissance of damask fabric alongside the name of Dora Jung*" (Brummer 1938).

Dora Jung's long career in damask art is also remarkable because linen damask had not been in a position of importance in Finland as elsewhere in Europe. Dora Jung was the first Finnish textile artist to

use solely damask in her vast textile output. She was also a pioneer in the collaboration between the Finnish weaving industry and textile artists. (Wiberg 1996, 81)

### Special features of damask textiles

A damask (Finn. *damasti*, F. *damas*, G. *Damast*, Sw. *damast*) is a fabric whose pattern is formed by the dominant weft and warp weaves of the same weave, usually of satin. On the face of the fabric, the patterns form of a mat weft surface and a glossy warp background, which causes the light to reflect differently from the surfaces. The damask pattern is seen on the reverse of the fabric as a similar, though inverse weave effect and inverse gloss. (Geijer 2006, 72; Lebeau et al. 2005, 10; Cyrus-Zetterström 1980, 65; Vainker 2004)

A characteristic of damask fabrics is the repetition of the pattern on the fabric. The pattern of a damask fabric can be repeated either as a mirror image (round of pattern, *chemin à pointe*), or it can be repeated several times (repeat, *chemin suivi*) broad- or lengthwise. (Prinet 1982, 23; Topelius 1985, 111) Damask weaving was very arduous work until the 19<sup>th</sup> century, since every part of the pattern had to be hand-picked off the warp.

In the beginning of 19<sup>th</sup> century, Joseph Marie Jacquard presented a reform to a draw loom. With the jacquard-loom, one could weave without the repetition of the pattern and several pieces of a new textile work could easily be manufactured. Dora Jung did not use jacquard-looms in her own weaving workshop but she did become familiar with their usage and capabilities in Tampella's manufacturing output. In her own weaving workshop she and her weavers used harness-looms.

The name of damask fabric comes from Damascus, Syria, through which oriental objects, especially silk fabrics, spread to Europe. In the 5<sup>th</sup> and 6<sup>th</sup> centuries, Damascus was a significant centre for fabric markets. (Prinet 1982, 17; Geijer 2006; Topelius 1985; Vainker 2004) Linen damask is characteristic in Europe.

French professor Marguerite Prinet, who has studied European linen damasks dating from the 16<sup>th</sup> to 19<sup>th</sup> centuries, illustrates the significance of the direction of light in white linen damasks. If the light source comes from the opposite side to the viewer the patterns appear to be dark and the background lighter. By contrast, if the viewer looks at the damask from the same direction as the light source, the background appears to be dark and the pattern lighter. For this reason, white damasks appear almost black and white in photographs. (Prinet 1982, 16; Schorta (ed.) et al 1999.) White damask fabrics were used at a time that halls were lit by open fires. When illuminated by the light of flames, the pattern starts glowing, even in three-dimensions. One can simultaneously see accurate outlines and darker, shaded areas. The glowing whiteness of the damask fabrics created a circle of light around it and made the room look lighter. In the brighter light of modern lamps, old damasks lose a whole lot of their original charm.

### Collaboration with Tampella

The collaboration between Dora Jung and Tampella began in 1937. At that time the artist was working on two big orders: textiles for Villa Baumgartner and the Savoy restaurant. Because of the large numbers of textiles ordered, Dora Jung contacted Tampella, which had jacquard-machines to weave the textiles. (DM, DJ arc., curriculum vitae; Timonen 2007, 17). Baumgartner, an industrialist, had his whole villa redecorated in 1937. Noted artists took part in this redecoration and Dora Jung was given the job of designing the linens for the villa. The order she sent to Tampella consisted of 20 towels, 6 dozen napkins, 4 dozen fringed tea

serviettes and 54 table cloths. The biggest table cloth was two meters by six meters. (ELKA: 718, Brev 1938, I-J, 25.2.1937. Dora Jung and Tampella.)

Dora Jung got the theme for the table cloths from the natural surroundings of the villa. The patterns of the finest damask linens included leaf tree branches and birds. Traditionally, they were white and had impressive monograms. (DM, DJ arc., sketch folders; Fisher 1965, 16, 25.) Dora Jung was the first Finn to have also exhibited industrial textiles. The napkins called Baumgartner were exhibited in an industrial art exhibition of 1937 in Helsinki. (DM, DJ arc. Photographs)

The decoration of the Savoy-restaurant was chosen by the architects Alvar and Aino Aalto (Kinnunen 2004). They chose Dora Jung as the designer for table textiles. Damask table cloths were embellished with wide stripes and the napkins with a ball pattern. Furthermore, in 1937 Dora Jung designed curtains for the Savoy cinema, which complemented the downstairs of the building designed by her father and uncle, Valter and Bertel Jung. (DM, DJ arc, sketch folders)

The linen line manufactured by Tampella received a lot of severe criticism in the mid-1950s. Maire Gullichsen, the founder of Galerie Artek wrote that Finland had fallen behind Sweden in the design of beautiful linen textiles. She wondered how “*an artists like Dora Jung, whom foreign experts consider the leading figure of her field; the damask, is yet to have her chance to set her skill at the service of the industry*” (Björneborgs Tidningen 9.9.1955). In the following year, the new Tampella linen line was introduced in Artek, with Dora Jung as its head designer. A table cloth novelty *Grafica* was Dora Jung’s first textile designed directly and solely for industrial production. However, she and Tampella signed a collaboration contract no earlier than in December 1959. (ELKA 9830, Contracts 1963-1985, Contracts with designers with appendices; Virkki-Paakkinen 1980, 4) By that stage she had designed some table cloth sets for Tampella, examples are *Grafica*, *Timber* and *Yrttitarha*, which received immediate praise for their modern expression. Hence the freelance-based collaboration that continued until the end of Tampella began. During that time she designed 24 different table cloth sets, 17 small linens, 6 towel sets and over 10 different curtain and furniture cloths (TMT/TLA arc.).

### From craft design to industrial design

As my research material I am using Dora Jung archives in the Designmuseum ( former Museum of Art and Design ), Tampella archives in Tampere’s museums and the Tampella archives stored in the The Central Archives for Finnish Business Records ELKA. Textile artist Dora Jung died in December 1980 at the age of 74. A close friend of the artist, interior designer Lisa Johansson-Pape organized the remaining material of Dora Jung’s weaving workshop and donated it to the archives of the Designmuseum in Helsinki. An important body of material that follows the development of Dora Jung’s damask art can be found in the correspondence with Ivy Öhrstedt from Stockholm from 1966 to 1974. In these letters, Dora Jung calls some of her textiles *turning points* in phases her own development, *milestones of different phases of development*. I will examine this development through the turning points, which she has herself named in her letters and which can be seen in the changes of her damask compositions. Following this development, I will compare the textiles produced in Dora Jung’s workshop to those contemporaneously manufactured in a factory.

### Milestones in Dora Jung’s damask art

In Dora Jung’s damask, *Kuusia ja pensaita*, made in her workshop one can clearly see the duplication of themes and mirror images. As the artist writes in a letter, it was weaved with draw loom and reports of 23



squares (Dora Jung 1967). A similar type of damask thinking can be found in Kukka, Tupa and Lehti damasks she designed for Tampella two years later (Fig.1)

The point paper (*mise-en-carte*) used as an aid for designing can be found for both versions. The weaver needs a point paper as an aid when he/she weaves damask. Punch cards were made for the jacquard-loom corresponding to the point paper. These two small damasks were the first factory-manufactured textiles to be shown in an exhibition in Finland. That is, they were presented at the Paris world's fair in 1938 and in the same year in the Museum of Industrial Art in Helsinki. (DM, DJ arc. curriculum vitae). They received particular attention in industrial art circles. In Finland the significance of industrially manufactured textiles being exhibited was a brave step. Previously, exhibitions presented only compositions manufactured by hand. *Not a moment too soon has in this business been created a much needed collaboration between the factory and the artist*, wrote Arttu Brummer (1938) who was also the president of the Museum of Industrial Art in Helsinki and a teacher in the Central School of Arts and Crafts. It is also interesting to follow how the same single

patterns moved from one textile to another in her work. This feature represents the graphic nature of a damask textile and provides the opportunity to duplicate the pictures.

In 1946, Dora Jung named a new step in the development: damask patterns are mirror images on the sides of the fabric, but in the middle of the fabric the pattern continues without repetition (Dora Jung 1967). She provides two works, *Varpu* from 1946 and *Piazzetta* from 1947 as examples of this. The *Varpu*-interior fabric was woven from both linen and hemp cloth in Dora Jung's workshop. The handling of the plant theme abstracted and the picture area came closer to the viewer. However manufactured industrially, *Varpu* did not reach the quality of that weaved by hand. The structure was found to be loose and with no backbone. (Virkki-Paakkinen 1980, 7)

In 1948, Dora Jung stated that she “*can weave freely over the surface of the fabric*” (Dora Jung 1967). This was the form of damask expression she persistently strove for. The first work she is said to have prepared in such a way is *Ten Virgins*. She described her own creative work after it had finished like this:

“Linen has been my favorite material from the start. At first I was most excited in getting out patterns. After 10 Virgins, which showed just like a drawing or a tissue, and besides it became alive only in certain lighting, my interest awoke in structure and little by little also in color. The expressional value of a textile is a unanimous sum of both of these factors. I always have to reach clarity about what material and structure I need to use in order to form the composition before I can actually do it.” (Dora Jung 1967)

Dora Jung designed *Piazzetta* again and this time the pattern went on without repetition by the width of the whole fabric. She developed this pigeon theme further and designed a work of three narrow textiles,



Fig. 1 Dora Jung's Kukka and Tupa damasks manufactured by Tampella in 1937.



which were awarded a Grand Prix-medal at the triennial of Milan in 1951. An art critic Eila Pajastie wrote about these Japanese kakemo-shaped damasks in 1956 like this:

“Instead of filling the rows of different patterns at regular intervals, she has grouped them freely. Thus, she has created an interaction between free, empty surfaces and pattern groups, which is not only within the reach of the damask’s control anymore but also requires a good artistic instinct.” (Pajastie 1956)

After this, Dora Jung’s output showed extended, graphic expression, which was no longer a repetition of small compositions and ornaments. She also began to add brocade into her patterns, as a consequence of which the works gained more color. Her damasks become estranged from the smooth, glossy surface and the pattern’s mat-gloss effect. According to her, “*the important thing in weaving damasks is to be able to consider the color and structure in the direction of both the weft and the warp*” (Dora Jung 1967).

Does the development of Dora Jung’s technical understanding show in her designs for industry? Did Dora Jung’s designs, working methods or textile quality change when she was designing models for Tampella?

The collaboration between artists and industry developed slowly in Finland although textile manufacturing was the first of industrial collaborations art group to form into a real manufactured art (Kruskopf 1989, 103). The weaving industry especially was last to exploit artists in the textile industry (Wiberg 1996, 81). The ideological father of the artist-industry collaboration in the Nordic countries was a Swede Gregor Paulson. His ideas of a more beautiful everyday artifact gained recognition here as well after the *Hemutställning*-exhibition in Stockholm in 1917 and especially after the *Vackrare vardagsvara* exhibition in 1930. This exhibition has been considered as the breakthrough of functionalism in the Nordic countries - from a textile point-of-view it is highly interesting. The exhibition remarkably extended the concept of industrial art. The exhibition aimed at being a symbol of new industrial art and art handicraft. The starting point was more the need for the practice of living rather than artistic compositions. (Wiberg 1996, 68)

The young Dora Jung, who had just begun her studies, also saw the Stockholm exhibition. In her letter she describes the exhibition as “*an experience, possibilities, a perspective for the future... it was a festive, colourful vision for my future work*” (Dora Jung 1967). At first, the industry most likely regarded textile artists as hand weavers and hired female engineers who had some knowledge of technology. Being women, they were probably

presumed to also have “*a natural sense of beauty*” and special knowledge of textiles. Indeed the tight collaboration between the weaving industry and the artists did not begin until the turn of 1960s. (Wiberg 1996, 80.)

### From a unique product to industrial design

With the Second World War came a shortage of material and Dora Jung’s workshop wove paper for four years (DM, DJ arc. design cards). Paper was an unparalleled material in damask weaving history. Damask fabrics tended to be only high-quality silk and linen textiles. Later the artist used many designs of the “paper era” in Tampella’s production. One of these is Princesses, 1943, designed for a wall textile of a nursery. In this textile, one can clearly see the mirror image starting in the middle. By 1943, Dora Jung had not yet found a way to weave patterns using the whole width of the fabric. The Princess-theme was repeated in linen after the war in Dora Jung’s own weaving mill. In 1960, Princesses was adapted to suit factory production. This changed the pattern to being a bit more stylized. However, the theme is very similar. The mirror-effect has been pulled from the center to the side, the crowns have been removed from the background and the artist

has signed this industrial work unlike those hand-made Princesses, actually made in her own workshop. This was new as far as industrial textiles were concerned and goes to show how the industry wanted to sell its own textiles through a particular artist. In the 1960s Dora Jung was already a very successful artist. The textiles with the artist's name gave the regular domestic textiles a mark of design.

*Imperishableness* in Fig. 2, was the first textile after the Second World War that allowed the artist to use colored linen yarns. This was the first damask textile in which Dora Jung used brocading. (Dora Jung 1967.)

“After weaving with paper yarns in 1942-46, there was a need for glamour. Therefore I wove a peacock. It is a texture in which the weft is unbleached linen yarn and which has calm blue and orange. I named it *Imperishableness*. I saw somewhere that a peacock is a symbol for imperishableness and I thought it was a beautiful word with substance.” (Dora Jung 1967)

*Imperishableness* has peacocks woven one below the other. The same peacock-theme was adapted for industrial production in 1965 and was renamed *Festivo*. This small linen has nearly the same peacock as in the original. Both have the mirror effect in the middle. It is not signed with the artist's own signature, just Tampella's own T-mark. (Virkki-Paakkinen 1980, 6). These two are typical examples of Dora Jung's textiles, which she made in her own workshop over a long time and ultimately made a conversion of the designs to the manufacturing industry scale. The patterning of these textiles has changed very little. The time difference between the hand-woven and its industrial counterpart might have been almost 20 years.

### The designs for jacquard-weaving

The first textile designed exclusively for industrial markets was named *Grafica* table textile series. It was Dora Jung's first entirely abstract industrial work. *Grafica* was put into production in 1957 (TMT/TLA, pattern book 2 A). Here she withdrew from the traditional and craft-based damask design. It had none of the naturalistic themes. The exceptionally big color contrasts were also new. The essence of damask was understood in a new way, very graphic and non-portrayal (Virkki-Paakkinen 1980, 8).

New clarity was found in another Dora Jung's abstract table textile series, which was called *Viivat* and *Viivojen leikki*, by the manufactures. However Dora Jung herself would have wanted the work to be named *Ekstra* or *X-tra*. The name would have referred to either the quality of the linen or the inspiration gained from radiation. (Virkki-Paakkinen 1980, 8) The linen won



Fig. 2 *Imperishableness*, detail, 1946.



Fig. 3. *Viivojen leikki* 1957.

the Grand Prix in the Milan Triennial of in 1957. Before this, it was displayed in Dora Jung's exhibition in Artek Gallery. She asked the factory to experiment with how narrow the lines the jacquard machines could be capable of weaving. These narrow lines created the criss-crossing *Viivojen leikki* in Fig. 3. (Dora Jung in Valkea kyyhky, 1980)

Dora Jung's new, bare industrial damask linens are, however followed by a return to natural themes. A *Hundred Roses* was ordered from Dora Jung in 1962 for the Stockmann department store's 100<sup>th</sup> anniversary. It is her most successful product as measured by sales. The roses pictured from above spread to a field shaped as a parallelogram in the middle of the linen. In this linen, Dora Jung uses a three-dimensional damask surface for the first time, this was easily made on the jacquard-machines. The same effect is seen in her *Valmu*-table textile series from 1970.

## Conclusions

Although the work was carried out in the factory, Dora Jung often made experiments in her own workshop, using the same densities and reeds as those used by Tampella's machines. Tampella's weavers recalled that whenever a new model arrived at the factory, Dora Jung visited the mill to see what the work looked like. Similarly, she also gave instructions on the work's progress standing alongside the weaver when a new composition was developed in her own workshop. Moreover, when Dora Jung wanted to find out how one could weave *freely with the width of the whole fabric* on looms, she also wanted to *feel the machines used by the industry because they help the model to become alive*, as she has stated.

What is remarkable is that working both with Tampella and within her own workshop experimented with the looms. The experiments focused on only one small area of the emerging textile. The target of the experiments was the choices of color, the structure of surface or, the arc of the pattern. She said *this kind of work cannot be designed on paper, it has to be created by the looms*. (Dora Jung 1967.) Her drawn sketches were indeed suggestive and often very small.

The interaction between the weavers and the factory workers was an essential part of Dora Jung's work. She did not talk about mythical, seeing hands, which feel and think as was the custom at the time in order to express the artist's creativity (Kalha 1997, 216; Aav 2000). She spoke of a common language of weaving with which the artist and the weaver communicate. They shared a language which only they understood.

The damask technique has been an important basis for designing for Dora Jung. An engineer of Tampella's linen factory, Veikko Soininen, also confirms this and states in addition that Dora Jung realised very quickly the opportunities and limitations of factory-based work (Soininen, 1980. Valkea kyyhky). She borrowed only the technical side of the damask tradition in order to make patterns. She traded the white, thin and glossy linen thread for colorful and rough often thick linen or wool. As an alternative she used many different colors and threads in the same weft, or made brocades for color areas. The *textile nature* of textile was important for her. As was the skill of the maker, which meant so much to her that she let others handle the execution of her designs.

In the 1930s and 1940s her designs for industry were very similar to the designs made in by her own workshop. That is, as she developed the damask piece in her own mill, she also changed the model-thinking to that of industrially manufactured designs. So it appears that Dora Jung designed for industry on the basis of her craft knowledge.

Dora Jung had a strong loyalty towards her chosen craft field. Although she was a versatile artist, she emphasized that: "*One must have the soul of a craftsman.*"

## References

- Aav, M., Viljanen, E. 2000. Tapio Wirkkala, ajattelevat kädet. Taideteollisuusmuseo, Helsinki.
- Brummer, A. 1938. Taideteollisuusnäyttely Taideteollisuusmuseossa. Helsingin Sanomat 6.4.1938
- Fisher, N. 1965. Dora Jung, a Finnish Damask Weaver
- Geijer, A. (1972) 2006. Ur Tekstilkonstens Historia. Slovenien.
- Cyrus-Zetterström, U. (1950) 1980. Handbok i vävning. Stockholm
- Gullichsen, M. 1955. Björneborgs Tidningen 9.9.1955.
- Kalha, H. 1997. Muotopuolen merenneidon pauloissa. Suomen taideteollisuuden kultakausi: mielikuvat, markkinointi, diskurssit. Jyväskylä.
- Kinnunen, U. 2004 (ed.). Aino Aalto. Alvar Aalto säätiö, Alvar Aalto-museo, Vammala.
- Kruskopf, E 1989. Suomalaisen muotoilun vaiheita. Porvoo: WSOY.
- Boot, C., de Zoete, S. 2005. Artistiek Damast. van Brabantse bodem 1900-1960 ontwerpen van Chris Lebeau, André Vlaanderen, Jaap Gidding en tijdgenoten. Amersfoort.
- Leppänen, L. 1983. Dora Jung damastitekniikan taitajana. In Dora Jung, 1983. Lisa Johansson-Pape (ed.) Taideteollisuusmuseon julkaisu no 7. Helsinki.
- Pajastie, E. (1954). Dora Jungin kuvakudoksia. Arkkitehti – Arkitekten 3-4 / 1954.
- Prinet, M. 1982. Le Damas de Lin Historié du XVIIe au XIXe siècle. Publications de la Fondation Abegg Office u Livre, Fribourg.
- Ryökäs, R. 2002. Maiestas Domini. Dora Jungin liturgisten tekstiilien viesti. University of Joensuu Publications in Theology no 4. Joensuu.
- Schorta, R. (ed.) 1999. Leinendamaste. Produktionszentren und Sammlungen. Abegg-Stiftung Riggisberg. Switzerland.
- Tampellan Tekstiilin Uutiset 18.11.1977.
- Topelius, A-S. 1985. Damastduktyg och verksamhet vid Vadstena fabrik 1753-1843. Nordiska museet.
- Vaigner, S. 2004. Chainis Silk. A Cultural History.
- Valtonen, A. 2007. Redefining Industrial Design. Changes in the Design Practice in Finland. University of Art and Design Helsinki A74. Gummerus, Jyväskylä.
- Virkki-Paakkinen 1980. Dora Jungin teollisesta tuotannosta. Taidehistorian laitos. Helsingin yliopisto.
- Wiberg, M. 1996. The Textile Designer and the Art of Design. On the Formation of a Profession in Finland. University of Art and Design, Helsinki.
- Öhrstedt, I. 1985. Dora Jung 1906-1980. Konstvetenskapliga institutionen vid Stockholms universitet.

## Unpublished references:

- Valkea kyyhky, 1980. Director Kirsti Petäjäniemi. TV 1 Culture programs. The program is part of the series: Pro Arte Utili, eighth part. First broadcast in TV1 27.12.1980. Program made in June 1980.
- Dora Jung's correspondence with Ivy Öhrstedt in 1966-1974

## Archives

- |      |   |
|------|---|
| DM   | Designmuseum, DM, DJ arc. (Designmuseum, Dora Jung archives ), Helsinki<br>textile samples; scrapbooks; sketch folders; design cards; work drawings   |
| ELKA | The Central Archives for Finnish Business Records, Mikkeli<br>9830, Contracts 1963-1985, Contracts with designers with appendices<br>9829, Contractual documents.<br>1042, Documents of the Historical Archive 1898-1984<br>718, Brev 1938, I-J |

TMT/TLA Tampella archives in Tampere's museums, Tampere. Pattern books.

Carole Gray, PhD, Professor &  
Gordon Burnett, DA  
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## MAKING SENSE: AN EXPLORATION OF WAYS OF KNOWING GENERATED THROUGH PRACTICE AND REFLECTION IN CRAFT

### abstract

*Art (creative practice) is now an increasingly acknowledged experiential mode of inquiry that, when firmly located within a research framework, can reveal insights and understandings in ways that expand our capacities for 'knowing'. The notion of 'making sense' can not only be taken as making (craftwork) through sensory exploration, but also as 'sense making' – creating understandings about that practice both through action and reflection on it. (Schön, 1983). Current discourse on experiential knowledge includes, for example, the concept of 'material thinking' (Carter, 2005) and 'materializing pedagogies' (Bolt, 2006). Both concepts open up possibilities for ways of knowing through immersive experience – what Dewey (1934) calls 'undergoing'. Informed by this context the paper presents the emerging findings from ongoing research – a dialogue between two makers (the authors) in the exploration of 'knowing through making'. This research has implications for the critical framing of craft practice and development of the higher education curriculum.*

**keywords:** *craft, reflective practice, making sense, epistemology, pedagogy*

### Introduction

This paper outlines our recent experimental exploration and thinking about 'knowing through making' derived from our ongoing practice-led research - *Making Sense* - through which we ask the *question*:

“What can be known by making that could not be known by any other means?”<sup>1</sup>

We offer some brief *context* pertinent to this question and a possible *methodology* and *methods* for addressing it.

Art (in its broadest sense - creative practice) is now an increasingly acknowledged experiential mode of inquiry that, when firmly located within a research framework<sup>2</sup>, can reveal insights and understandings in ways that expand our capacities for 'knowing'. We take as our philosophical touchstones Dewey's important insights on 'art as experience' (1934) and the important concepts of immersion and 'undergoing'; Schön's concepts of the 'reflective practitioner' and 'knowing in action' (1983); and Bruner's 'constructivist learning' - learning through doing, through practice in relation to social interaction (1996).

The notion of 'making sense' can not only be taken as making<sup>3</sup> through sensory exploration, but also as 'sense making' – creating understandings about that practice both through action and reflection on it, as in Schön's concept of 'reflective practice'.

1 Paraphrased from Barrett, 2007

2 For AHRC's definition of research and funding criteria see [www.ahrc.ac.uk](http://www.ahrc.ac.uk)

3 Making as creative and critical manipulation of thought and material

## Context

Current discourse on experiential knowledge includes, for example, Carter's concept of 'material thinking' (2005) in which he says that 'local knowledge' is the 'distinctive yield' of creative research. 'Material thinking' has implications for pedagogy as in Bolt's concept of 'materializing pedagogies' (2006)<sup>4</sup>. Adamson's 'thinking through craft' (2007) proposes craft as an active process for working towards broader understandings. Such concepts together with a recent series of innovative conferences – 'Sensuous Knowledge'<sup>5</sup> open up possibilities for ways of knowing through *material* and *sensory* experience.

As precursors to current discourse on 'material thinking' there are a number of historical examples that compellingly demonstrate the value of 'making sense' - things that could never have been possibly understood without some imaginative approaches involving 'making'.

For example, Gaudi's inventive model of the Crypt in the Colonia Guell (1898-1914), a hanging set of catenary curves using string weighted with lead balls, which when viewed through a mirror directly beneath, gave an image of a proposed complex vaulted ceiling<sup>6</sup>. Crick and Watson's experimental improvised structures in wire and metal around a laboratory retort stand led to the eventual DNA model (1953) - a materialisation of what had hitherto been presented as two-dimensional data<sup>7</sup>. With simple materials - string, lead, wire, metal plate and resourcefulness with *things to hand* (mirror, retort) – abstract and complex insights and understandings may be drawn out through the simultaneous connected processes of thinking and doing.

## Methodology

Informed by this context we present our emerging findings from our ongoing research in which the main methodological framework is dialogic. Through collaboration and dialogue we can question our assumptions about making and its value in terms of ways of knowing, attempt to exteriorise what would normally be implicit in the making, and try to visualise and communicate how we come to know. In order to question our assumptions we wanted to work outside of our comfort zones for making, eliminate preferred ways of working, challenge our existing knowledge, and encourage fresh thinking. To achieve this a key tool in our exploration was ARP – *Art as Random Process* - a 'choice/chance' database, developed as part of Allan Watson's PhD<sup>8</sup>. ARP gives a set of eight 'categories' ('substance', 'time', 'senses', 'place', 'quantity', 'method', 'quality', 'mind') within which are further options for action given by chance or choice. We used ARP in two different ways: firstly, as an analytical tool to provide focus and rigour through common criteria for analysing previous work; secondly, as a means of stimulating ideas for new work – exactly as the inventor intended. Within the dialogic framework we are using both active and reflective methods to structure and analyse this exploration: the reflective method - 'Sense Making' and the active method - 'Making Sense'.

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4 Carter and Bolt's work is discussed in more depth in our journal paper – *Making Sense: 'material thinking' and 'materializing pedagogies'*, <http://interactivediscourse.com/>

5 Initiated and hosted by the National Academy of the Arts, Bergen, Norway. [http://www.khib.no/khib/ku\\_fou/konferanser\\_seminarer/sensuous\\_knowledge/sensuous\\_knowledge\\_2\\_aesthetic\\_practice\\_and\\_aesthetic\\_insight](http://www.khib.no/khib/ku_fou/konferanser_seminarer/sensuous_knowledge/sensuous_knowledge_2_aesthetic_practice_and_aesthetic_insight)

6 To see an image visit - [www.gaudiclub.com/ingles/i\\_vida/fotobras/colonia/1102.jpg](http://www.gaudiclub.com/ingles/i_vida/fotobras/colonia/1102.jpg)

7 To see an image visit – [www.sciencemuseum.org.uk/images/I045/I0313925.aspx](http://www.sciencemuseum.org.uk/images/I045/I0313925.aspx)

8 Completed in 1992 at Gray's School of Art, The Robert Gordon University, Aberdeen



## Objectives and Methods

Our *first objective* was to try to establish a viable dialogic framework for the project by developing a mutual understanding of our existing experiences of making. For this we used the reflective method of *Sense Making - Reflecting on Action* - a conversation (captured digitally) about two completed pieces of creative work (one by each of us) in which we reflected on these specific experiences of making, what we each understood through this, and what might be different ways of knowing. This method entailed the following:

- using 4 of the 8 ARP categories to help structure the conversation and analyse the completed works in relation to the criteria of 'place', 'substance', 'quantity', and 'method'
- having the actual work and sketchbooks on the table - to hand
- having a time-limited conversation of 45 minutes - captured on digital video and separate audio.

Through this method we exercised Schön's 'reflecting *on* action'.

## Sense making - reflective analysis

The audio recording was transcribed and analysed by us both independently and then we shared our emerging understandings. From this reflective analysis we both realised that we had worked from within a framework of *the familiar - the known* - especially familiarity with materials and technologies. Intentionality was very strong for both of us - we each had a clear vision for the outcome. In both our cases there was no dialogue (in a formal sense) as part of the making process. However, unexpected discoveries were made, for example: (for Gray) a technical discovery - that sanded acrylic over LED's produces subtle colourings, not revealed through photography; (for Burnett) the realisation that responsiveness to specific local cultural context can generate new understandings. From this experience we understood that reflection is a productive practice in itself, and that, when framed within a dialogic process, helps to make what is tacit in practice explicit.

Our *second objective* was to actively and speculatively explore making in the dialogic framework, by sharing with each other our ideas, processes, challenges and emerging understandings. For this we used the active method of *Making Sense – Coming to Know in Action* - a time-limited project that entailed the following:

- using the ARP database and keeping to the 4 ARP categories – 'place', 'substance', 'quantity', and 'method' - we each used only 'chance' options to each derive a set of 'ingredients' - in the form of words - for making new work.
- a 2 week period of preparation and planning was agreed to research the words, material possibilities and processes
- keeping a record of development in sketchbooks
- a 2.5 day period only - in the workshops to realise the new work.

Through this we exercised Schön's 'knowing *in* action' - what he calls "the characteristic mode of ordinary practical knowledge".

Gray's ARP 'ingredients' were:

'place' - elliptical, The Milky Way; 'substance' - limestone polypody; 'quantity' (a paper size) - B5 (250 x 176mm); 'method' - casting

A startling selection to which her first reaction was "how can these possibly be combined in any kind of sensible way?" Immediately the ARP method made her admit to what she didn't know (e.g. limestone

polypody – it's a fern), made her investigate further what she thought she did know (The Milky Way) - which as it turns out wasn't very much!



Fig. 1 Extracts from Gray's sketchbook

Burnett's ARP 'ingredients' were:

'place' - irregular, The Milky Way; 'substance' - frothy; 'quantity' (paper size) - own choice (250 x 250mm); 'method' - assemblage

His first reaction was "what do I know about these words - what do they mean?" For Burnett the selection made by ARP was immediately unsettling, because of their diversity and implausibility. The challenge was to embrace them.

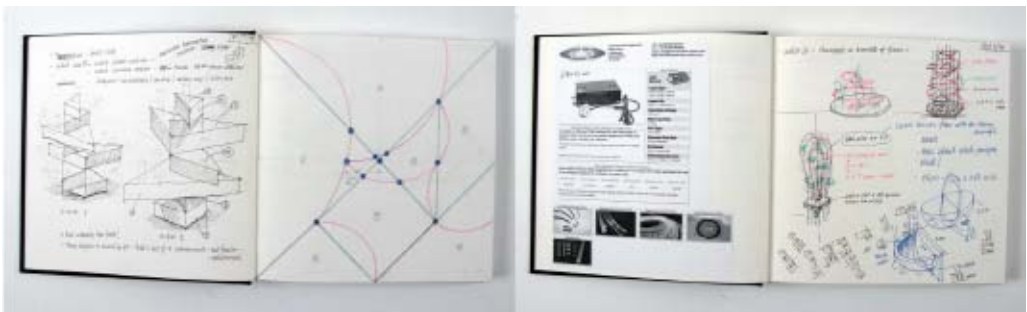


Fig. 2 Extracts from Burnett's sketchbook

At the end of the two-week preparation period we met on a Thursday afternoon and shared the accumulated knowledge through our sketchbooks and discussed needs for the following week's two and a half day workshop session. At this point Gray needed Burnett's advice and expertise as the feasibility of generating a solid precise quarter ellipse through the use of rapid prototyping. He said it could be done - over the weekend. This was a critical decision point. During this discussion Burnett affirmed that any work that he makes must have function - so the idea for a light was proposed.

Monday, 4<sup>th</sup> August 2008 marked a distinct change in pace. With an urgency to act, but still with no vision of any conclusions, we went into the workshops where machines, tools and materials were available. From the precise quarter ellipse mould Gray started to produce plaster casts while Burnett began searching for things to hand - foraging in the workshops for appropriate bits of material to hold his light source. Although not planned, every few hours we checked on each other, curious to know how things were going.



This interaction helped each of us to focus or open up aesthetic or technical issues. Critical dialogue – something that normally happens silently with oneself – was being made explicit through our interchange as our paths of inquiry crossed. Making became dynamic. We were reflecting in action and ‘coming to know in action’.

Day 1: Good steady progress was made, with what Burnett called ‘ping-pong’ conversations. This was followed by independent evening reflection.

Day 2: A sticky start - frustrations with technical issues, re-thinking options, time wasted, the pace slowed. Again evening reflection provided an opportunity for ‘adjustment’ and some unexpected strategic decisions.

Day 3: Pressure to resolve immense, and make important decisions very quickly and stick with them. We both finished by 2.00pm Wednesday ready for the planned conversation with another maker - Allan Watson, sculptor, educator and ARP inventor.



Fig.3 The completed work (left - Gray's, right - Burnett's) - 'embodied knowing'?

Throughout this process Gray had no idea how the work would be resolved. Literally an hour before the deadline five forms ‘presented themselves’. It was as though she had no knowledge of them. This is radically different from her usual way of working where an end product is envisaged and worked towards. For Burnett the components he had been working with before assembly in the final hour conveyed masculinity (were phallic, angular, mechanical). Once linked with the optic fibres and illuminated, the assemblage suddenly transformed, becoming organic, oceanic, dynamic - it ‘came alive’.

#### Making Sense - Reflective Analysis

Immediately on finishing at 2pm on Wednesday a structured conversation with Watson about the work produced took place. From his informed perspective as an artist and educator he asked a series of informed and perceptive questions that we had no knowledge of beforehand, for example:

“Describe what you *feel* about what you have created?”

“Can you express what you understood about your *intentions* before you began to make the work?”

“Is your history of understanding ‘smoothly consistent’ or were there *pivotal moments* when clarity of understanding occurred?”

Again this was a time-limited conversation - 45 minutes - captured by digital audio. Up until this point there had been no time for us to absorb and make sense of what we had done. We were too close. Through this conversation involving reflection and analysis we attempted to make embodied knowledge explicit and began to understand our experience. A month later we listened to the recording and analysed this conversation.

### Outcomes and Analysis ‘New Ways of Knowing?’

Estelle Barrett in her book ‘Practice as Research’ (2007) asks a crucial question - paraphrased here as: What can be known by making that could not be known by any other means?

In trying to be true to the ARP ‘ingredients’ given - to be authentic - Gray made a new kind of work that surprised her. The objects had a certain ‘autonomy’ - she made them but in fact they revealed their own nature to her (especially through being photographed) as ‘new worlds’.

“Against the black their true form and meaning is revealed - they are worlds in themselves, planet like objects floating in space - black space - and their scale and nature is ambiguous. They are elliptical places.”

(Extracted quote from Gray’s sketchbook)

For Burnett the whole project helped him understand more about the relevance of dialogue in making - facilitating critical reflection, decision-making, and contributing to shared understanding - both cognitive and affective.

“Interaction makes making dynamic ... through dialogue.”

(Extracted quote from Burnett’s sketchbook)

However we were aware that dialogue could also be destructive if there is no willingness to learn, be able to listen and empathise.

At the end of the ‘Making Sense’ action stage we both realised that we had worked within a new framework - that of *the unfamiliar - the unknown* - although we brought to bear mature practices and distinct aesthetics. We each had no clear vision for the outcome. However, we both were propelled by the interaction through dialogue as part of the making process. As with the first method (‘Sense Making’), unexpected discoveries emerged at the end of the process, along with a heightened sense of surprise.

The concept of emergence was recognised as a feature within the analysis of our outcomes. Both within and at the end of the *Making Sense* process new understandings emerged as a result of our dialogue and co-reflection, where knowledge emerges from that experience and is not handed down. In *Making Sense* we became co-producers of what Carter calls ‘local knowledge’.

As part of our reflective analysis we found a valuable concept in the epistemological literature - ‘connected knowing’ (Belenky, Clinchy, Goldberger and Tarule, 1997). This epistemological orientation is towards ‘relationship’, the ‘connected knower’ developing ways of accessing the knowledge of others. ‘At the heart of these procedures’ says Belenky ‘is the capacity for empathy’, which expands one’s own experiential learning base. In her view the most ‘trustworthy knowledge’ emerges from personal experience rather than ‘the pronouncement of authorities’.

“Connected knowing involves feeling, because it is rooted in relationship; but it also involves thought. ... it entails ‘generous thinking’ and ‘receptive rationality’.” (Belenky, p 121)

We recognise our own experience of 'Making Sense' in the epistemological orientation of 'connected knowing'.

### A 'materialist pedagogy'?

Drawing from our shared experience of *Making Sense* we propose the development in the craft curriculum of what Bolt (2006) calls a 'materialist pedagogy' - an explicit framework for inquiry in craft – one that is constructivist, research-led, collaborative, critical, with its own distinct language and discourse that might help extend and amplify the voice and value of craft.

The theoretical frameworks for a 'materialist pedagogy' are discussed in more detail in our 'interactive Discourse' journal paper (<http://interactivediscourse.com/>) but here we present a pragmatic outline of an iterative student project - one that can be repeated at each level of study. The aim of this student project is to extend creative and critical action and reflection, through a methodology that is dialogic, relational, entailing collaboration. The methods involved include the use of ARP, reflection *on* action, reflection *in* action, and the structured analysis of conversations. In terms of the student learning experience, learning stages, timing and physical conditions/environments need to be considered.

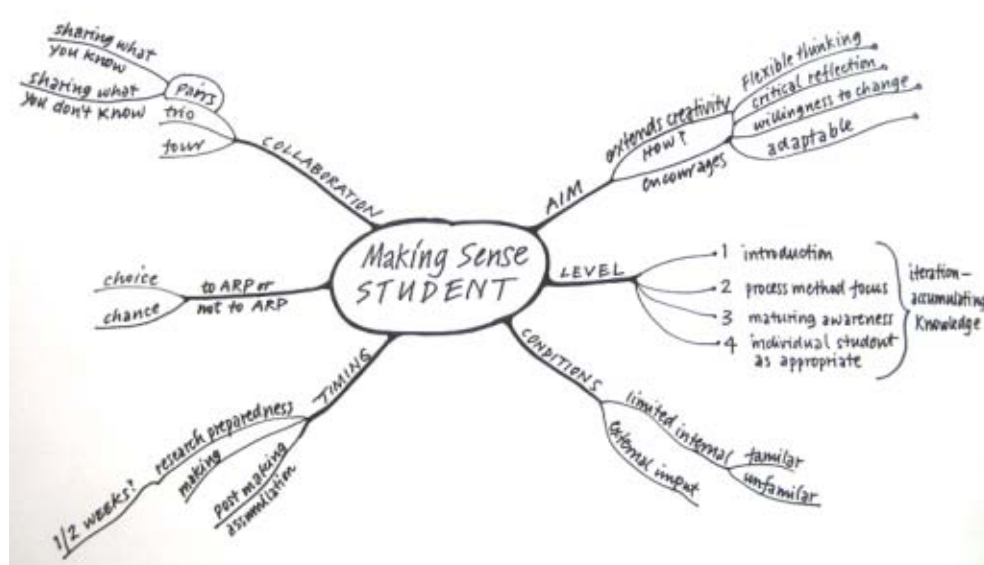


Fig. 4 Concept map – Making Sense student project

A *Making Sense* project will be tested (in 2008) over a three-week period with level three Honours Degree students studying Three Dimensional Design, linked as pairs. The project will begin by outlining the critical discourse, methodological framework and aim. Three days will be allocated for making. The authors will carry out critical reflection on and analysis of this curriculum development in 2009. In future re-iterations we anticipate that this methodology will be re-shaped and refined and eventually owned by the students themselves through the experiential learning process itself.

## Conclusions

In terms of ‘Crafticulation’ - the articulation of craft - we have outlined a practice-led research methodology - question, context, methods, outcomes and implications – that might be useful to our peers and to our students. In terms of expanding our own capacities for ‘knowing’, at the time of writing this we are still in the process of assimilating a very rich immersive experience for which the in-depth analysis is the content for a new paper. However, in actively pursuing a practice-led research project, we have understood from first hand experience the concept of ‘connected knowing’, in which personal ‘local’ knowledge has become shared knowledge through the acts of conversation, forbearance, attentiveness, listening, and ‘connected criticism’. Through reciprocity and trust we have arrived at empathy.

We would like to conclude with this quote from Glenn Adamson

“Craft only exists in motion. It is a way of doing things ...  
organized around *material* experience.” (p. 4 Adamson’s italics)

Again we recognise our own experience of *Making Sense* in this - of craft as a dynamic process of learning and understanding through material experience, returning us to one of our philosophical touchstones - John Dewey - and his concept of ‘art as experience’.

## Acknowledgements

We are very grateful for the sharp insights and critical feedback on the draft of this paper provided by Dr Estelle Barrett (Deakin University, Australia) and Dr Allan Watson.

## References

- Adamson, G. (2007) *thinking through craft*. New York: Berg
- Barrett, E. & Bolt, B. (2007) *Practice as Research: Approaches to Creative Arts Enquiry*. London & New York: IB Tauris
- Belenky, M. F., Clinchy, B. M., Goldberger, N. R. & Tarule, J. M. (1997) *Women’s Ways of Knowing: The Development of Self, Voice and Mind*. New York: Basic Books
- Bolt, B. (2006) *Materializing pedagogies*. Working Papers in Art and Design 4. Retrieved 22/11/07 from <http://www.herts.ac.uk/artdes/research/papers/wpades/vol4/bbfull.html> ISSN: 1466-4917
- Carter, P. (2005) *Material Thinking: the theory and practice of creative research*. Melbourne University Press
- Dewey, J. (1934) *Art as Experience*. New York: Perigee
- Schön, D. (1983) *The Reflective Practitioner: how professionals think in action*. San Francisco: Basic Books
- Watson, A. (1992) *An Exploration of The Principle of Chance as a Stimulus to the Creative Activity known as Sculpture*. Unpublished PhD thesis, The Robert Gordon University, UK

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## SMALL PIECES OF ANTLER MAKE SENSE

### abstract

*In this presentation, I will deal with a development project in duodji (Sámi arts and crafts) that I carried out a couple of years ago at the Sámi University College, Guovdageaidnu / Kautokeino in Norway. In terms of theory, I will discuss how research and development in duodji (Sámi arts and crafts) produce new knowledge. My focus will be on participation in the duodji process and on how experiences from earlier research and everyday life are part of the creative methodology. My aim is to prove the experiences that lie behind people's decisions to create something. I use my own experiences, moving from the perspective of being a researcher who gathers and analyzes empirical material to being a creator who adds new interpretations to earlier analyses, through products. I then change strategies: I move from analysing present empirical material to interpreting upcoming material through a creative process.*

**keywords:** *antlers, myths, small pieces, artistic production*

### Background

In 1993, I completed my master's degree, *hovedfag* in Norwegian. The focus of my thesis was reindeer antlers, and, as part of the thesis, I interviewed both reindeer herders and craftsmen about the use of antlers (Guttorm 1993). Some of the information I got at this point I interpreted in my project in 2001, but I also dealt with new questions.

My informants in my master's thesis, and in the written sources, seem to mean that the best antlers to use in *duodji* (Sámi arts and crafts) production are the antlers from male reindeer, and that the part that is nearest the "base" of the antler is the most useful one. The amount of "bony" material in the antler depends on the food and, of course, the "social" life of the male reindeer which affects the biological body. The bony antler is strong, and it is easy to engrave on it and to bend it.

But what about the other parts of the antlers? This was my starting point for the project: Which parts of the antlers that are "spam" can be used – and how can they be used – in an innovative way in a *duodji* process? My starting point was a very "traditional" material which is used in *duodji*, but I also wanted to use this material in a new way. The main focus of the project was practical, which meant that the production of *duodji* was the main thing, but, as I have said, I also reused empirical material that I had gathered earlier. I then was my own informant, since I used my own experiences in this work.

### Methods

I divided the empirical part in three different approaches. To understand what kind of material antler is, I tried to look at the antler as part of the reindeer: how does it grow, when does it grow, what are the differences between the behaviour of the females and the males, and what is the condition of the reindeer?

The next approach concerned some stories/myths about antlers and how they affected some reindeer herders. But the main method was my own work on products.

### Duodji as a research subject

When the late Nils Aslak Valkeapää, a Sámi multi-artist, described how art was lived in the earlier Sámi society, he wrote:

For the Sámi, all of life was art. The clothes. What kinds of clothes you wore. How the clothes fitted. How you moved. How you made the fire. How you used the belt. How you adjusted the dress. How you drank coffee. How you could craft. Were you also good at choosing decoration for your clothing. How beautifully you could go down on your knees (Valkeapää 1998: 10).

With these few words, Valkeapää describes that the whole life is art, how you sit, drink coffee, how you move, have you dress. He also had a comprehensive approach to artistic life – of which *duodji* was part – since his view was that all parts of life were connected.

Previous researches on *duodji* (the Sámi word for craft) have historically mainly been done by people from outside Sámi society, and the researchers have examined things from the perspective of an outsider. When we adopt the *indigenous perspective*, the production of knowledge in *duodji* makes more voices audible. When I use the concept *indigenous perspective*, I do not mean that you have one single method or approach to research: rather, it entails using the knowledge and experience that the researcher has as an indigenous person, and this is not a perspective used only within “indigenous research”. *Indigenous perspective* also means being critical of the starting point of the construction of knowledge, which has made the experiences and knowledge systems of indigenous peoples covert in the Western or European systems of knowledge. In addition to this, the main purpose of the *indigenous perspective* is to correct the situation – as part of the decolonization project (see Battiste 2000: 192-208). This means that I as a researcher have to make my own position clear. For me as a researcher, it is important to emphasize my own position. Since my subject also deals with a creative process where I myself am producing objects, it is even more obvious that the researcher’s own position and stories are of importance.

The *indigenous perspective* also deals with the returning of knowledge and the explanation of things from this starting point. This also entails a healing process: that indigenous peoples are healed from the suffering they experienced in the past when they were not allowed to manage and develop their own systems of knowledge. In this process, the choice of terminology (*duodji*) is also a strategy.

Bernstein and McMaster propose that instead of talking about universality, it is possible to emphasize diversity in creative activities when dealing with aesthetics. According to the authors, artists only need to improve their skills to be able to design, as they have been born to, and understand, the framework of discourse in their culture. This idea seems to mean the same as Bourdieu’s “cultural capital” (1995). This does not mean that individual people cannot move or change anything within the culture. According to Bernstein and McMaster, individuals cross many discursive boundaries and experience many phases of life, as people have their own will. Therefore, each one has his/her own “solution” to expression (Bernstein & McMaster 2004: 38).

How we understand and assess what we see also arises from our practice and cultural experiences. Bernstein and McMaster suggest that the inner references of culture are the factor that carries the narrative forward. Lyotard calls the Western history of progress – with its emphasis on knowledge – “the grand narrative” which aims at legitimizing the modern culture; he calls this narrative also a metastory (Lyotard



Fig. 1 A cast antler.

every day. Today, too, the antler is a popular material for craftspeople. The Sámi word for the antler, *čoarvi*, is an original Sámi word and known in all the Sámi dialects. *Čorvoš* means both the antlers together with the frontal bone. Both the female and male reindeer grow antlers, although at different periods of the year (Tyler 1993: 43).

The antlers of the male reindeer are important in the rutting season, when the males have to show their strength to the other males. Therefore, the male reindeer start to grow their antlers in the spring. The female reindeer, in turn, need their antlers when they are pregnant and must defend themselves in order to get enough food (Tyler 1993: 50).

The antler starts to grow from the pedicle (*láhppa* or *báknemádda* in Sámi), which consists of two bones that are outgrowths of the frontal lobe. The reindeer does not have these bones when it is born: the bones develop during its first or second year. The first parts of the antlers – the antler bases – are called *báknji* in Sámi. One could say that the antler base is an extension of the frontal lobe. It is protected by a skin that is similar to the one covering the rest of the skull. However, when the antlers grow bigger, the skin around the antlers becomes thinner. This first velvet skin is called *námmi* in Sámi (Tyler 1993: 44). The antlers are very soft and frail as long as they are covered with such velvet skin.

The antler grows very quickly. When we examine the antler from its tip to the base, we find three different types of tissue that work together when the antler is growing. They are the tip with its unspecialized cells, the cartilage, and the bone. The growth occurs in the tip (Tyler 1993: 43), which is at first very soft, as it mainly consists of growth cartilage. Right under the velvet skin are the unspecialized cells. Underneath them, there is the cartilage which contains a lot of blood and makes the growing antler tougher (ibid: 44). Since the antler grows quickly, it needs a lot of nutrition. For this, it needs a good supply of blood. There are blood vessels in all the un-ossified parts of the antler, such as the cartilage and the porous bone tissue (*sieksa* in Sámi). This porous part is the inner part of the antler, through which the blood returns to the head. The antler base consists of bone.

### Velvet cleaning

As the antler grows, it becomes increasingly ossified and the blood in it ceases to circulate. As a result, the antler and its skin dry. The velvet skin is no longer needed, and the reindeer sheds the velvet. When a male reindeer begins to shed the velvet, the rutting season is about to begin.

1997: 23). Instead of recognizing and including the histories that have been excluded, we need to have many different histories side by side (ibid).

### Gathering ideas - antlers

Using antler as a material is a decision one who wants to create must make. I started to study antlers very carefully to understand the material and its social impact on people. The antler is a material that can also be called bone. Through the ages, the antler has meant a great deal for craftspeople, as it can be used for a variety of objects that are needed



In the case of a male reindeer, the whole antler becomes ossified, and the velvet cleaning occurs when the amount of the hormone testosterone increases in the blood of the reindeer (ibid: 46). This hormone prepares the males for the rut. Testosterone completes the ossification of the antlers and the velvet shedding, making the antlers tougher for the fights that take place between the males during the rut. Tyler suggests that, for the female reindeer, the hormone oestrogen has a similar effect on the ossification of the antlers and the velvet cleaning.

### Antler casting

When the rut is over, the male reindeer no longer needs its antlers. A bony antler is a dead antler, as it no longer grows. The cells between the pedicle and the antler base loosen the antler from the pedicle. This is when the male reindeer casts its antler.

### Stories of antlers: Tiida and antlers

My next decision to create came when I reinterpreted my informants' stories.

Reindeer antlers have been used in sacrificial contexts and have, therefore, historically been an important and valuable material for the Sámi. Today, too, many Sámi regard antlers as something special. Those who regard antlers as a part of the reindeer can remember a special reindeer because of the antlers; they may also believe that one must treat antlers in a special way in order to have a good life and good fortune with reindeer. When I was working on my master's thesis in *duodji* in the 1990s, a reindeer herder told me that you must treat antlers in a special way, especially if they were the antlers of your own reindeer, in order to prevent the good fortune from disappearing. He gave me an example: if a reindeer dies out in nature, you must not take its antlers, but let them lie there as *luonddu oassi* (Nature's share) (Guttorm 1993). A woman told me that her father had a reindeer that wandered far from its own area. Nevertheless, they managed to localise the reindeer and travelled to the area and slaughtered it. Her father saved the antlers of the reindeer. They became a memory of the reindeer; they were hidden away innermost in the shed, and, though her father was a *duojár* (craftsman), he never touched these antlers. The people who live close to the animals have another view on antlers than those who simply regard them as pure material: for the first-mentioned, the antlers are also signs and memories of the reindeer.

Why do herders care so much about the antlers? In my opinion, it is because the herders are close to the reindeer, and because they believe that how you treat the reindeer will influence your own happiness and good fortune.

In the Sámi language, we have a word *tiida* (belief or myth). *Tiiddastallan* means to do things in a special way in the faith that if you do so, you will have your good fortune. I use the word fortune in the sense of things being fine (fate). Kerstin Eidlitz Kuoljok makes a difference between the two senses of the Sámi word for fortune (*lihkku*): the word can refer both to happiness and being fortunate (1999). According to her,



Fig. 2 Two kinds of antlers with marrow in the middle.



indigenous peoples are fortunate when things are fine in the sphere of basic needs (ibid: 142). In order to be fortunate, you need to pay attention to the narratives and myths that tell why certain kind of behaviour will bring you fortune. In my opinion, it is possible to talk about *tiiddastallan* in the case of antlers. In the old myth according to which the Reindeer was given to humans as a gift, the reindeer is obviously considered as a special animal. It was the reindeer itself that was, in this tale, the holy animal, but, later, parts of it, such as antlers, have also been considered powerful. Antlers have been sacrificed in different ceremonies. Often, the best antlers were sacrificed, and it was absolutely forbidden to take (steal) from the *sieidi* (or natural gods). Even if many Sámi today do not know the tale about the reindeer or do not believe that antlers are “sacred”, the *tiida* has meaning for people, and the above-mentioned stories told by people who live close to the reindeer show this.

As long as the antlers are attached to the reindeer and in use, they, of course, belong to the reindeer, who need the antlers. But when the reindeer do not need them any more, they cast them, and they become a welcome present for people. Most craftspeople come in touch with antlers when they need them for their *duodji* production. They purchase the antlers, and, in that case, antlers are goods in a trade between the *duojár* and the reindeer herder.

### The creating process

The information about the antlers made an impression on me. Earlier, I had used antlers in a very “ordinary” way. Now I wanted to use the “worst” part of the antlers, the marrow and the ends of the antlers. When thinking about the way the antler grows, I realized the importance of its inner part: that is where the blood circulates. Therefore, I became fascinated by the idea of using this part in my craft.

Usually in a *duodji* process, the material in a way shows you what to do: how the shape ought to be, etc. Thus, the sketching is done on the raw material, which is, at the same time, a traditional material. I am also used to working this way in *duodji*, and I adopted this method this time, too, but, of course, had to watch and try more than usual. Therefore, even if I had an idea of the shape at the beginning of the process, it could change. But what is most important here is the personal story that I attach to the work. It does not necessarily mean that the viewer needs to adopt my experiences. Another important aspect of *duodji* is that you make the *duodji*, the object, for a special person. While I was working on some of the pieces, I thought about a specific person, and, in that sense, I applied a method of the *duodji* “tradition”. I will now present some of the products of the process.

### Be patient

I started to work on this piece of craft after I had finished my doctoral thesis. As the ones who have gone through a hard working process know, one really feels empty of ideas at that point. I also doubted whether my use of time the last 5 years had been a proper use of time. I felt that my doctoral thesis was important for the strengthening of Sámi research competence in my workplace, the Sámi University College. Nevertheless, it seemed that time was not ripe for academic craft research on the terms of *duodji* itself. After turning the thesis in, I felt uneasy, also because I had been digging the field for something that might be of use for contemporary research – without succeeding. This was not a situation that depended only on me. It had also been caused by the University of Tromsø and the faculty at which I had taken my doctoral studies. *Duodji* research was quite a new subject at the Art Institute, and the post-graduate students mostly worked on their

own. This gave them a feeling of working in the shadow. To start with a creative process in *duodji* was similar to mental training. In order to clear my thoughts and to think of something else, I started to clean up my workshop that I had hardly entered in the past years. Pieces of antler rolled about on my table. I started to glue together small pieces, one by one; my aim was, first of all, to make a block and, then, to make a shape out of the block.



Fig. 3 My working materials.

As I said earlier, I wanted to get a design that would look both smooth and raw, so I used both marrow and bony material. Making this piece of craftwork felt meditative, as I repeated the same thing over and over: I looked for a piece of antler, studied the pieces I had already used, and glued the two together. At the same time, I also worked intentionally, examining how the different colours and characteristics of the antler – bony and porous parts – could be used to design a certain appearance. I also had to find a way of getting the pieces stick firmly together. I worked on this piece of craft until the day when I was informed that I would be allowed to defend my thesis. I call this work *Be patient, be patient*.



Fig. 4 *Be patient, be patient*

### The book and the opening

The design I used, gave me an opportunity to try something new, and, therefore, I continued to make different images by using the same design method. I made *The book and the opening* at the end of my project. I added more materials to the items and experimented with different kinds of technical keys. It is quite common to carve images on antler in the Sámi items. But, since the *sieksa* – the porous part – makes it difficult to scratch the surface, and since the glued pieces themselves made a design, there was no question of decorating the piece of craft (by carving). Still, I wanted to transmit the image of the ornaments to my work. The zigzag pattern is quite common in Sámi design, so I tried to find a technique that would give the impression of zigzag ornamentation. As background, I used leather. Mostly this was a play with the materials.



Fig. 5 The Book and the Opening.

### The image of the boat II

I grew up on the river, and, in summer, the only vehicle we could use was a boat constructed especially for rivers. As in every boat, the shape of the middle part of the boat determines how the boat moves in water. We learned early to use the boat. As we children got older, we also helped the grownups with different activities, and one important task was to be *ovdageašolmmoš* (the person who sat in the front of the boat). It was a difficult responsibility for a young person, who was perhaps not yet strong enough and may not have learned the technique of using the *čuoimmi* (the pole with which the boat is manoeuvred up or down the river). The Karasjok River has a great number of *njavit* (shallow, swift stretches), which can have little water, and, in some summers, the water is low and the rocks are close to the surface. This entails a lot of work for the person who is sitting in the front, watching the rocks and

helping the driver to steer the boat. To take a trip with the boat was exciting, and being given the job of the *ovdageašolmmoš* was a sign of trust. During the boat trip, you could feel both fear and joy. For me, the river boat is a symbol for my first 20 years of life.

My uncle was a boat builder when he was younger. I have always wanted to build a boat with him, but it has not been possible. While I was playing with my pieces of antler, I wanted to give myself a substitute for a bigger boat. It also became a memory of my uncle, who was a boat builder and who was always ready to share his skills with other people. He is now an old man and does not build boats anymore, but, in Sápmi, a new generation of boat builders has appeared. I myself have never – so far – had the opportunity of building a boat, and, therefore, it is not only my responsibility to preserve this skill.



Fig. 6 The Image of a Boat II.

### Fanasgárri - Boat container

My last example also deals with the boat theme. Here, I have combined this theme with the idea of a low container, *skáhppu*. In addition, I have wanted to place the pieces of antler so that the design gives the work a distinct decorative feature. The serrated ornamentation is used, for example, in sewing, weaving

and in carving decorations onto wood and antler. In this piece of craftwork, I have concentrated on the technical solution to how to produce such ornamentation.

## Discussion

It was new for me, as a researcher, to be my first informant. As a matter of fact, this situation was quite a challenge, as, after being the informant, I later had to examine myself from a distance and interpret my actions. I suspect that there are many experts of Sámi craft, or *duodji*, who would say that the things I make are not Sámi handicrafts. However, I have chosen to use the verb *duddjot* (to craft) for what I do, as I feel that this term, which exists in the Sámi language and context, covers the creative process. My craftwork, or *duodji*, would be just as good, or bad, even if I called it *kunsthåndverk* – the term used in Norwegian – or *art*, as indigenous people's craftwork is called in North-America. In addition, I feel that I have learned creative skills through making *duodji*, and, therefore, it would be weird to use some other word than *duodji* for my craftwork. I have chosen a contextual approach to knowledge. The personal story that a *duojár* (craftsperson) weaves into her/his work is a new dimension, which differs from the "collective" story. On the other hand, it can also be an interpretation of the collective memory. By taking a minority and indigenous approach, and by using the cultural artistic expression of a specific culture, design itself creates the space for diversity in ideas and opinions.

As I said at the beginning, I have adopted many approaches in this research project. I have used my senses actively during the work. I have woven together my experiences of life and the knowledge I have of the materials. Furthermore, the myths about the antlers, the *tiidas*, that some people have, have given me a new perspective and respect for the antler as a material, and this has also, to some extent, influenced the design.

The knowledge about antler as a material is something that many craftspeople already have; it is, in a way, basic knowledge, and, in that sense, I did not contribute anything new. Of course, I used my technical skills. As in all design, the technique is part of the *duodji*. I have tried to use even the smallest pieces of antler in order to get a mosaic design on the surface.

The products are the visualization of my reflections on antler; they are the result of both my experience as a *duojár* (or craftswoman) and a researcher, and my experiences of everyday life. For me, the specific material, antler, is essential. As part of the reindeer, the antler is also part of a common memory that has been passed on through the use of the material and through stories and myths. This I have incorporated into my own creating. Of course, I could have used other materials to achieve the same feeling, but, for me, they would have given another kind of meaning.



Fig. 7 *Fanasgárri* – Boat Container.

## References

- Battiste, Marie 2000: Maintaining Aboriginal Identity, Language, and Culture in Modern Society. Marie Battiste (ed.): *Reclaiming Indigenous Voice and Vision*. Toronto - Vancouver: UBC Press.
- Bernstein, Bruce and McMaster, Gerald 2004: The Aesthetics in American Indian Art. Bruce Bernstein – Gerald McMaster (ed.): *First American Art: The Charles and Valerie Diker Collection of American Indian Art*. New York: University of Washington Press.
- Bourdieu, Pierre 1995: *Distinksjonen En sosiologisk kritikk av dømmekraften*. Oslo: Pax Forlag A/S.

Guttorm, Gunvor 1993: *Čoarvi muitala Čoarvvi hápmi ja ivnnit niibeduddjomis*

Guttorm, Gunvor 2004: Kunstner, verk og betrakter – kunsthistoriske grunnlagsproblemer og duodji i en postkolonial teoridanning. Gunvor Guttorm – Jostein Sandven (ed.): *Sløyden, minoritetene, det flerkulturelle og et internasjonalt perspektiv. Techne B/13/2004*. Notodden: Høgskolen i Telemark.

Kuoljok, Kerstin Eidlitz 1999: *Moder jord och andra mödrar Föreställningar om verkligheten bland folken i norr och vår syn på den*. Stockholm: Carlssons Bokförlag.

Turi, Johan 1968 (1910): *Muitalusat sámiid birra*.

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## THE CONSTITUTIVE SOFA CUSHION – MATERIALIZATION ANALYSED FROM A CULTURAL PERSPECTIVE

### abstract

*How can personal values materialize through a hand-made everyday artefact, and how can the artefact constitute action and self-perception? The empirical research and analysis concerns how a former textile crafts teacher's subjective values and professional identity materialize through a hand-woven sofa cushion, with the sitting room as a cultural and informal environment as its arena in 2006. The local and social network of the informant (born 1919) is traced through a detailed cultural analysis of the creation, usage and existence of the sofa cushion, including even the material interactions occurring between the human body, space and artefact, thereby revealing the materialization process. Based on results of the analysis, ANT (Actor-Network- Theory) is used in order to discuss how The Danish Folk High School's conception of simplicity as an aesthetic and gendered ideal in the formal education of female handcraft-teachers, was generated and constituted with the sofa cushion as one of many actors.*

**keywords:** Home-textiles, Aesthetic and Gendered Ideals, Identity, Materiality, ANT (Actor-Network-Theory)

### Introduction

The present paper stems from research at Department of Curriculum Research, Danish School of Education, University of Aarhus, where I practice my work as an Assistant Professor in Material Culture and Learning. The Department offers a Master of Arts (Education) in Educational Theory and Curriculum Studies (Material Culture).

The research and the education focuses on handcraft processes, materiality, and curriculum related to learning, social, aesthetic and gendered issues in both formal (school and education) and informal (home, workplace and leisure) relations and situations . Of course we take an interest in what we are doing with and to artefacts, but today the interest also concerns what the artefacts are doing to us (Ehn & Löfgren 2004) during creation and during daily use.

In my project (Hanghøj 2007) I distinguish 'objectification' from 'materialization' i.e. 'objectification' is the process by which an individual bring certain values, ideals and understandings to life and create tools and other artefacts from the ideas, (Wenger 2006) while 'materialization' is the process in which meaning is negotiated and in which values, ideals and understandings materialize in front of you during the creative process and through the artefact in its daily use. Artefacts have their demands or commands. They 'call' us and we must "respond rather in a bodily than a cognitive way" (Merleau-Ponty 1962: 139; Cerbone 2006: 131)

Female customer wants to buy a wooden bowl in a shop and the shopkeeper informs her, that the bowl will break if she does not oil it sometimes. The customer gets angry – she wants a bowl which can do

something for her, not the other way around. “If I buy an artefact which makes demands of me,” she says, “I might as well have a few children instead. I never buy clothes that have to be ironed and I never buy curtains that need to be sewn. I don’t need that bowl; I will have a glass bowl instead.” And the shopkeeper politely informs the customer that the glass bowl cannot be washed in a dishwasher. “Fuck off!” the customer says and leaves the shop. Artefacts must indeed do something to us, call and make demands of us.

To weave a cushion and to use it in a living room is not only a matter of what a person do to the cushion, but also a matter of what the cushion does to the person. But what can a hand-woven cushion actually do to a person? This has been the main question of the project. What can a hand-woven cushion do through its creation, use and daily presence in a living room, and what in particular can it do to the person who made the cushion herself? Can it constitute action and self-perception?

## Methodology

I limited my empirical choices to one artefact, one informant and one room. I thereby challenged myself and the academic practice to see if these limited and narrow empirical choices could bear and answer the questions of an academic investigation.

The choices were:

- A hand-woven cushion made in 1988 by
- a Danish textile handcraft teacher, Mrs. Edith Bukh, born in 1919 – who were taught a profession in a Danish Folk High School programme aimed to educate women as handcraft-teachers.
- The informant’s living room 2006

Like the Norwegian professor in aesthetics, culture and learning, Else Marie Halvorsen, I regard culture as a process constructing subjective and collective identity (Halvorsen 2004). The cultural and educational context in this project is the textile handcraft culture within the historical organisation “Højskolernes Håndarbejde” (HH) – “Folk High School Handcrafts”. The time frame is 1930 – 2006.

“Folk High School Handcrafts” (HH) was a Danish organisation that operated from 1932 to 2002, with its heydays from the 1930s to the early 1970s. The women behind the organisation were handcraft-teachers in the Danish Folk High Schools. They educated women, and they created, produced and sold patterns and materials for embroidery and weaving, inspired by ‘genuine’ and original material, representing the aesthetic ideals of the Danish pre-industrial peasant culture. This production represented a sort of invented tradition (Guldberg 1998: 44; Hobsbawn 1983: 1-14). Together, these women formed a strong social and professional network, they were handcraft ‘dictators’ and role models, and they educated many women, including the informant of my project, through their firmly held ideals, which became not only aesthetic, but also gendered.

Professionalizing textile handcraft and women through education included a construction of gender in a normative emancipation. It was normative because it was based on traditional female work including national-romantic ideals, but it also represented an emancipation of women, because the education provided the female teachers an opportunity to earn their own money and to develop their own professional life.

In my method and theory I followed the traces of the artefact, regarding the cushion as documentation and as a non-human actor. Following the actor itself through its traces is one of the French philosopher and anthropologist Bruno Latour’s theoretical and methodological ideas (Latour 2005) according to the Actor-



Network-Theory (ANT). His idea of a flat social network without time- and space limits contains the idea of human and non-human actors interacting in networks via the notion, that objects are acting too i.e. they make a difference and play different roles in the acting of human beings. The hand woven cushion as a non-human actor, its traces: materials, colours, pattern, technique, its creation, use and existence and its aesthetic and gendered ideals (e.g. simplicity), became, in collaboration with the human actor, the informant and her narratives, one of the main entrances to the cultural analysis aimed to find answers about materialization, about what an artefact do to a person and about how close subject and object can be connected. The methodology included:

- Narratives and interviews
- Phenomenological descriptions (Merleau-Ponty 1994, Bachelard 1994)
- Detailed descriptions of the artefact as an entrance to a
- Cultural analysis of the creation, usage and presence of the sofa cushion (Ehn & Löfgren 2004)
- The results of the cultural analysis is combined with an ANT analysis (Latour 2005) of simplicity as an aesthetic and gendered ideal in a never ending network of simplicity with the sofa cushion as one of many actors

I define the concept of materiality not only as objects and artefacts but also as acts and actions – and as relations, illustrated in the model of materialization (fig.1). In this project following *my* choices and *my* construction the relation between body and artefact focuses on *creation*, the relation between artefact and space focuses on the *use* and the relation between space and body focuses on the daily *existence or presence* of the cushion. These relations lead to materialization of values and understandings illustrated in the centre of the model.

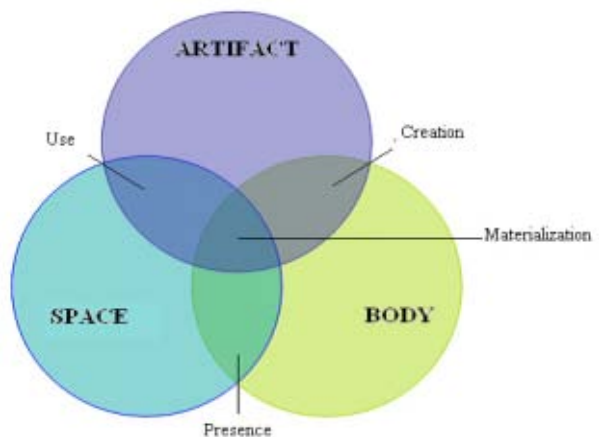


Fig. 1 Model of materialization (Hanghøj 2007)

Creation, Use and Existence are the headlines of the main analysis in the investigation. Under the headline “Creation - or how to connect your body with the world through the creation of a cushion”, I examined the processes connected with choices and selections of:

- Thread and materials
- Colour
- Loom and weaving
- Pattern
- Finishing the work

The artefact (fig. 2) was chosen, because it represented the aesthetic choices of the informant in general. The choice became obvious, when I listened to the narratives of the informants professional and personal life, when I observed her home and home textiles, and when I related her choices to the context of the Folk





Fig. 2 “In its countless alveoli space contains compressed time. That is what space is for”. (Gaston Bachelard 1958 (1994))

cushion woven in the early 1960s by a woman closely connected to the informant through the social and professional HH-network. This woman died young and the informant and her husband adopted her only son. This fact became important in the analysis, as I regarded the cushion as a transitional object connecting the inner and the exterior world of the informant through textile objects and social relations according to Judy Attfield:

”Thus textiles present a particularly apposite object type to illustrate how things are used to mediate the interior mental world of the individual, the body and the exterior objective world beyond the self through which a sense of identity is constructed and transacted within social relations.”  
(Attfield 2000: 123)

As a transitional object the hand woven cushion combined the informant with her role models, the other women in the HH-culture, in a social, emotional and professional network and thereby took part in the construction of her identity.

### Creation

All choices involve rejecting other possibilities. The informant did not choose artificial materials, hand-spun wool or intense colours. I examined the cultural and aesthetic reasons for this in detail and found that it was important in her handcraft culture to show discipline in choice of material, thread, weaving, pattern and the body. Raw wool was disciplined into a combed thread, which was disciplined into a certain weaving technique including certain weaving rules disciplining the body to control itself during weaving, using the body as a tool and the tool as body (Silvén 2004).

Through education, the informant learned identification of certain materials, colours and techniques as a basis for making the ‘right’ choices according to her textile handcraft culture. Learning practice through her formal education, she then practised her understanding (Søndergaard 2000), not only in her own professional life as a teacher, but also through her informal life in the living-room.

Separating the professional from the amateur was part of the professionalizing process. In sewing the cushion together instead of using a zipper, the informant demonstrated to her visitors and the other members

High school Handcraft culture, which is highly documented through text books, photos, manuscripts, articles, patterns, materials, textiles and pupils works.

The cushion was based on a pattern from HH, it was made from combed wool from HH, vegetable dyed with chestnut and indigo mixed by the informant. It was woven on a small handloom in a traditional Scandinavian technique, in Danish called “ligesidet røllakken”.

### Results of research

The cushion was made in 1988 by the informant, but it was based on an elder

of her social acquaintances, that she had the time, the ability and the knowledge to care for, wash and handle the artefact in a professional and correct way in accordance with the ideals of her textile handcraft culture.

The constructions of reasons for the right choices, distinguishing right from wrong, genuine from false (materials, colours, femininity, patterns), was in the HH textile handcraft culture derived from the textile history of women and from the functionalism. Both aesthetic and gendered ideals lie buried here.

## Use

In the analysis of the relation between artefact and space, it is relevant to take a close look at the daily use. Thus, the living room was analysed as:

- a space of structure and order
- a poetic space
- a space of care (care for materiality and care through materiality)
- a gendered and social space

When somebody sits on the sofa cushion, it is deformed, and the informant responds to the ‘call’ of the cushion by bringing it back to its original form and structure, shaking it up and beating it. This is possible because of its fluffy down filling. The living room of the informant is dominated by functionalism and simplicity. When her housekeeper has cleaned and left the house, the informant “brings things back to order in the living room”, (my translation) correcting the placing of cushions and ornaments – it is a bodily feeling, she explains, she cannot help it. According to Maurice Merleau-Ponty this can be explained by the idea of a subjective body-scheme (Merleau-Ponty 1994). In this case the classic ideal of composition called “the golden section”, as the informant learned it through her education, has become a part of her personal body-scheme. “The individual elements must be more similar than different” is the informant’s motto. It is her own way to express the principle and the rules of the golden section and of simplicity, and she transfers this rule from the way she chooses and uses her patterns in textile handcraft (eg. the pattern of the handwoven cushion) to the way she keeps her home tidy in a certain gendered way. Thereby the ideal of simplicity becomes both aesthetic and gendered.

Taking care of home textiles during creation and use and taking care of the home is here not only seen as gendered action but also as a sensory and tactile action and experience. The French philosopher and phenomenologist Gaston Bachelard points out how taking care of a furniture means creating.

“...when he puts a little fragrant wax on his table with the woollen cloth that lends warmth to everything it touches, he creates a new object. He increases the object’s human dignity.” (Bachelard 1994:67)

In the period from 1956-1959, new textile patterns by HH were presented weekly through articles in a Danish newspaper, *Jyllands Posten*. This included not only descriptions of the textiles, but also directions and ideals for decorating the home and for the ‘right’ life for a housewife. The headlines of the articles comprise an extract of meaning showing that the cushion was ‘humanized’, and that the woman and the cushion in the 1950s were expected to have the same functions in the home. Here are a few examples of headlines:

- The Cushion for Decoration and Usefulness
- It Cheers up the Living Room

- Cushions must be Quiet
- A Cushion has many Tasks

The strategy of rationalizing and formalizing the home, started by functionalism as a social programme in Denmark in the 1930s supported by the Danish Government, architects and Danish Women's organisations, and it led to a focus on cleanliness and order and made simplicity a duty more than a liberation with the sofa cushion as one of many actors. The textile handcraft culture HH and the The Danish Folk High School played a role in this emerging social network of functionalism and simplicity, by using the home textiles as actors to obey the aesthetic rules and by using the housewife as a gendered and aesthetic actor and main keeper of better homes.

Not all women obeyed these directions of simplicity. A comparison of the functionalistic living-room of the informant (fig. 3) and that of another Danish female handcraft-teacher of the same age, but rooted in a different textile handcraft culture (fig. 4), made me imagine the informant visiting the other woman in her living room and reverse. Their body-schemes would most likely both be challenged in different ways by the other woman's home because of the differences in aesthetic choices and the differences in the numbers of materials, colours, techniques and things. It is simplicity and austerity versus diversity and homeliness.



Fig. 3 Simplicity and austerity



Fig. 4 Diversity and homeliness

## Conclusions

- Artefact, body and space are united in the sofa cushions' creation, usage and presence.
- In the informant's mind the social, professional and historic background and environment for the cushion's creation blends with the social environment for the cushion's use today. The ideas and understanding of practice deriving from the informant's educational life (e.g. the golden section) materialize in the informant's practice of understanding in her every day life and becomes part of her body-scheme.
- The sofa cushion represents compressed time, the amateur is separated from the professional, the knowledge and care of the informant materializes through the cushion in the form of the informant's values in life and the cushion hereby constitutes her professional identity.
- Knowledge was seen as power in the education of textile handcraft teachers in the middle of the twentieth century, setting the amateur apart from the professional in a marginalising and excluding way. How is the situation today in the educational handcraft world, do we share knowledge instead?
- Simplicity is not only an aesthetic ideal but also a gendered ideal which becomes part of the informant's body scheme. This led me to an ANT analysis of the local network of the informant placed in a global network:

The Never-ending Network of Simplicity in Time and Space.

Human and non human actors :

- Simplicity as an ideal is older than functionalism as ideology and as style
- The Danish Folk High School – aesthetic and Scandinavian ideals
- The City Hall of Copenhagen (1905) is "the Danish Folk High School marching into the capital in clogs" (my translation)(Abrahamsen 1994: 117)

- Martin Nyrop – architect
- HH patterns and materials as conveyers of aesthetic ideals through education and through the letter box in private homes as mail order business
- The sofa cushion
- The informant and her role models
- Cleanliness and structure – gendered ideals
- Project Housewife and functionalism as a social programme (Schmidt 1986)
- Young peoples revolt against simplicity and cleanliness in the 1970s
- “Less is more” (Mies van der Rohe - Bauhaus)

If I refer this project to the title of the conference the conception of the new word “Crafticulation” is not only a matter of expressing yourself through craft but also a matter of how crafts constitute action, professional identity and self-perception.

### References:

- Abrahamsen, Povl (1994): *Den danske enkelhed. Et samfund og dets arkitektur*. Chr. Ejlers’ Forlag. København
- Attfield, Judy (2000): *Wild things. The Material Culture of Everyday Life*. Berg. Oxford. New York.
- Bachelard, Gaston ((1958)1994): *The Poetics of Space*. Beacon, USA.
- Cerbone, David A. (2006): *Understanding phenomenology*. Acumen
- Ehn, Billy og Löfgren, Orvar ((2001) 2004): *Kulturanalyser*. Gleerups Förlag. Malmö.
- Guldberg, Jørn (1998): *Tradition, modernitet og usamtidighed. Om Børge Mogensens FDB-møbler og det modernes hjemliggørelse i 1940’erne*. Arbejdspapir. Designstudier. Center for Kulturstudier, Odense Universitet
- Halvorsen, Else Marie (2004): *Kultur og individ. Kulturpedagogiske perspektiv på kulturforståelse, kulturprosesser og identitet*. Universitetsforlaget. Oslo.
- Hanghøj, Sara Agnete Bjerre (2007): *Den konstituerende sofapude – materialisering set i et kulturanalytisk perspektiv*. Ph.d.-afhandling. Danmarks Pædagogiske Universitetsskole, Aarhus Universitet.
- Hobsbawn, Eric ((1983) 1995): *The Invention of Tradition*. Cambridge University Press
- Latour, Bruno (2005): *Reassembling the Social*. Oxford University Press
- Merleau-Ponty, Maurice (1994): *Kroppens fænomenologi*. Redaktion Filosofi, DET lille FORLAG.
- Merleau-Ponty, Maurice (1962): *Phenomenology of Perception*. Routledge.London
- Schmidt, Lars-Henrik og Kristensen, Jens Erik (1986): *Lys, luft og renlighed. Den moderne socialhygiejnes fødsel*. Akademisk Forlag, Viborg.
- Silvén, Eva (2004): *Bekänna färg. Modernitet, maskulinitet, professionalitet*. Nordiska Museets Förlag. Stockholm.
- Søndergaard, Dorte Marie (2000): Destabiliserende diskursanalyse: veje ind i poststrukturalistisk inspireret empirisk forskning. I: Haavind, Hanne (red.): *Kjøn og fortolkende metode. Metodiske muligheder i kvalitativ forskning*: 60-104. Gyldendal Norsk Forlag Akademisk
- Wenger, Etienne (2006): *Praksisfællesskaber. Læring, mening og identitet*. Hans Reitzels Forlag, København.

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## GENDERED CRAFT – TAILORING IN FINLAND FROM THE 1920S TO THE 1960S

### abstract

*The Finnish tailoring practice was studied from the point of view of the trade publications and a specific country tailor. The focus of the study was on the changes of these practises. In order to define tailoring in contrast to dressmaking, this article compares the country tailor's practice to that of his sisters who were dressmakers. The garment making was divided between the tailor and the dressmaker according to gender, different traditions and values in the design and manufacturing of men's and women's clothes as well as the types of and structural differences in the clothing. Dressmaker's clients participated more in the design process than the tailor's male clients. Fashionability and individuality of the garment was more important to women. Tailor-made garments were more complex in construction; men's suits had various layers of interfacing and padding. Women's dresses had no linings, interfacings or complicated seam structures.*

*The changes of bespoke tailoring in Finland are also explained. Bespoke tailoring declined because of industrial garment making, made-to-measure suits and the changes in clothing and consumer habits. The style of men's suit has remained the same for two centuries, which helped the industrialization of suit making. Bespoke tailoring also declined because the clients and tailors themselves became followers of temporary fashion rather than creators of their own style. Hand made production was slow and expensive; it was easier and cheaper to buy ready-to-wear garments. Furthermore, men started to use less formal wear and different kinds of clothes, not only suits.*

**keywords:** clothes, craft, dressmakers, tailors, trade magazines

### Introduction

Textile crafts; sewing, knitting and weaving have mainly been women's work in Finland, but tailors – the makers of men's suits and coats – have mostly been men. According to the Tailors' Trade Union there were two and a half thousand tailors in Finland in 1940's (Vaatturi 1946/2, pp. 27–29). After the Second World War industrialization, commerce and traffic connections developed gradually and ready-made clothes became available even in rural areas. Therefore bespoke tailors lost their clients. However, in the countryside bespoke tailoring lasted until the 1960's. One of those country tailors was the author's grandfather Einari Tiainen (1908–1976), who worked as a tailor from the 1920's to the 1960's. His father had taught the trade to his children, and Einari, his brother and three sisters all earned their living by sewing clothes to customers.

Einari Tiainen and his tailoring practise constituted the microhistorical case of the study (Kaipainen 2008). His process of designing and making clothes, the products, the scope of activities and productivity as well as the changes of the practice were studied. Because of the interest in the specific features of tailoring in contrast to dressmaking, the country tailor's practice was compared to that of his sisters who were dressmakers. The microhistorical research data consisted of the tailor's sales ledgers, 38 garments and



the interviews of 28 informants. Qualitative content analysis, quantitative analysis and artefact analysis were used as methods of the present research. In the study, artefact analysis means that all the available clothes were examined by their styles, production methods and structures: sewing techniques, materials and machines used. Two items were examined thoroughly inside out and their construction methods and technical structures were carefully analyzed and documented.

The phenomenon, tailoring practice, was also studied from the point of view of the trade publications. The main research data consisted of the 1928–1962 annual volumes of the trade publication *Kuusisen Uutiset* (“The News of Kuusinen”, published by wholesaling firm Kuusinen Ltd) and the 1920–1969 annual volumes of the trade journal *Vaatturi* (“Tailor”, published by the Tailors’ Trade Union). The focus of the study was on the development and changes of tailoring practises and the influence of the trade publications and organisations to the trade.

This article will concentrate on the decline of bespoke tailoring and especially to the gendered aspects of tailoring practise and compare tailors’ and dressmakers’ work.

### **The decline of bespoke tailoring**

Before the Second World War men’s suits and coats were both made by hand and manufactured industrially. In Finland the first actual clothing factories were established in the 1920’s (see e.g. Vaatetustyöläinen 1920/1, pp. 6–7). The competition against the clothing industry worried the tailors who made bespoke and off-the-peg garments by hand. Good craftsmanship, business skills and following of the changing fashion trends were seen as the requirements for success for bespoke tailoring. In the 1930’s the wholesale clothing agency Kuusinen supported the development of tailors’ practices, particularly the country tailors’, with its publications and by organising tailors’ conferences as well as pattern cutting courses all around Finland to develop tailors’ craft skills. Later on the agency acted as a sponsor for the tailor guild in many ways.

The Second World War and the rationing of clothing and fabrics for 8 years created many difficulties, but on the other hand the repairing and remaking employed the tailors more than before. The difficult times increased co-operation among the tailors. Nearly all of the Finnish tailors joined the Tailors’ Trade Union, which, until then, had mostly been an organization of the employers in the trade. After the depression and along with the increase of industrial garment manufacturing the bespoke tailors lost most of their customers. Bespoke tailors were instructed by the trade publications to increase their competitiveness by emphasizing the benefits of bespoke suits, rationalizing their production methods and by advertising. Also getting women and the youth as customers for the bespoke garments was seen as an important way of survival. The number of bespoke tailors, however, declined significantly during the 1950’s, when wearing made-to-measure suits instead of bespoke suits became popular. Many tailors following the example given by Kuusinen Ltd. either changed their tailoring practice to supplying of made-to-measure suits, selling of ready-to-wear clothes or working in the garment industry. Whilst the industrial garment manufacturing developed and the bespoke tailoring declined, the wholesale cloth agency Kuusinen Ltd. had shifted its business focus into producing and supplying of ready-made garments by establishing manufacturing plants, such as a suit factory, together with some master tailors.

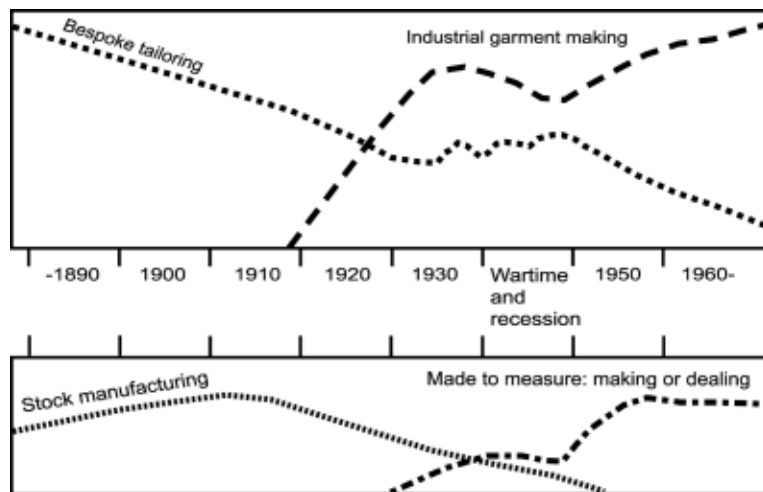


Fig. 1 Changes in men's wear manufacturing in Finland: The decline of bespoke tailoring because of stock manufacturing, industrial garment making and made-to-measure suits (Kaipainen 2008, p. 225).

The diagram (Figure 1.) shows the general changes in men's wear manufacturing in Finland during the 20th century. The diagram is divided in two charts for clarity. The diagram shows how bespoke tailoring declined first because of stock manufacturing, then because of industrial garment making and made-to-measure suits. The years of the Second World War, the depression and the rationing were exceptional; bespoke tailoring was still needed at that time. During the war years the clothing industry made garments mainly for soldiers and there were not enough fabrics for civilians. According to trade publications much of tailors' work consisted of mending and re-using of old clothes, i.e. ripping out the seams and turning the fabric or a part of the garment inside out or making smaller clothes from the undamaged parts of garments. The lack of materials dictated the style, and the fabrics and colours were those one could get. Men's trousers were narrow and jackets single-breasted and combination suits were worn for practical reasons. Less material was used for suits; partial linings, for example, were recommended in tailors' magazines. Sometimes interfacings were even substituted with paper.

In the 1950's textile industry had recovered from the war and the clothing industry also gained a footing. Industrial structures had developed strongly in Finland after the Second World War mainly because of the war indemnities Finland had to pay to the U.S.S.R. (Karisto, Takala & Haapola 1998, p. 57). Customers started to buy cheap ready-made coats, suits and trousers instead of bespoke tailoring.

### **Einari Tiainen's tailoring practice from the 1940's to 1960's**

The professional practices of a South Karelian country tailor, Einari Tiainen, do reflect the developments and changes in the tailoring practices on a national level. Nevertheless, some of the changes happened later in the countryside of eastern Finland than in the towns of southern Finland.

Einari Tiainen was trained through an apprenticeship by his father from the age of twelve. A pattern cutting course organised by Kuusinen Ltd. was apparently the only professional course he ever took. He made quality suits, jodhpurs, coats and fur coats out of the excellent materials supplied by Kuusinen Ltd. According



to calculations based on the surviving order books he fabricated mainly trousers (44% of all orders) and suits (27% of all orders). The country tailor's clients were mostly men. They were local people such as the vicar, teachers, farmers and frontier guards. Some clients came from far, even from big towns in order to get a suit that fitted their special figure properly. Formal evening dresses, tail coats or tuxedos were not ordered by country tailors' clients. Also men's shirts were not made by tailors. The industrialization of men's shirts started in Finland already in the nineteenth century. In the end of 1930's there were several shirt factories to serve the demands of customers (Lappalainen & Almay 1996, pp. 23–93).

Einari Tiainen made the garments by using traditional tailor's work methods, but he also started to apply new technologies and new materials. The trade publications advised the tailor's one-man-business in many ways, by informing about the trends in fashion, for example. Einari Tiainen's garment making was at its height immediately after the Second World War when people needed lots of clothes but not many ready-made clothes were yet available. During the time from 1945 to 1970 the number of the tailor's clients and orders reduced and the annual sales proceeds and profit decreased. Country tailor Einari Tiainen lost the competition although the price of the suits he made became relatively cheap compared to ready-made suits at the end of the 1950's. His clients' orders also changed to alterations of ready-made suits and trousers. Because of this Einari Tiainen's work orders and sales figures declined drastically in the 1950's. When there were 130 orders per year in 1945, 25 years later there were only 10 orders from individual clients per year. His sales proceeds decreased to one fifth and the profit to one tenth in ten years from 1953 to 1962. The decline of profit was serious especially when considering the inflation with the rapid increase in prices (see Tilastokeskus 2007). Suits, fur coats and trousers were the items which were still ordered from him sometimes, while coats and jackets were bought ready-made already in the beginning of 1950's. In the 1960's his tailoring practice had decreased to a very small scale business and in the beginning of the 1970's he closed down his business.

### **Male tailors and female dressmakers**

Tailoring was considered to be a men's profession. Men owned tailoring firms and did the more demanding work themselves. Men's coats and suits were usually sewn by the male tailors, because women were not considered as able to make them properly. Sewing of trousers and vests were considered simple enough for female workers in tailoring firms. Women also got smaller wages than the men. In Finland women were not allowed to go to trade schools for tailors until in the 1940's. At that time, during and just after the Second World War, there was a great demand for new tailors. Female tailors were considered to be good workers and they were encouraged to specialize in making women's walking suits and coats, where "ordinary light sewing skills are not sufficient". However, some of the male tailors still thought that men had better natural qualifications for tailoring (Kuusisen Uutiset 1943/103–104, pp. 16–17; 1945/116–118, p. 14). Until 1975, the Tailors' Trade Union was mastered by men only. Dressmakers were not welcomed to join the Tailors' Union although in the 1970's the number of members was low and membership fees insufficient.

The practice of the country tailor Einari Tiainen was different from his dressmaker-sisters who worked in the same area. Both the country tailor and the dressmakers were ordinary craftsmen who made clothes according to clients' wishes, but there was a division between the style of the garments, their materials and structures, the design process and individuality of the garments as well as the kind of customers they had.

The tailor used traditional work methods in pattern-making and sewing, and the quality of craftsmanship was important. The dressmakers concentrated more on clothing design and the appearance of the garment. The tailor's clients were mostly men and the dressmakers' clients were women. Also the clothes made varied

according to the gender. The male tailor sewed mostly men's woollen garments, and the dressmakers sewed mainly dresses for women and girls from different materials. One exception in garment making was women's trousers; when women started to use trousers it was the male tailor who made them, not dressmakers. That is perhaps because of tailors knew how to make patterns for them. Tailors, however, only made trousers, walking suits and coats for women, not dresses or blouses. Dressmakers could easily sew underwear and workpants for men, as one did not need special patternmaking skills for making loose fitting garments.

Valuable woollen materials for the men's garments were ordered from a wholesale cloth agency and their fabric selection was the starting-point of design to the tailor and his clients. The dressmaker's clients, on the contrary, decided the material and its colour themselves, because they bought the material beforehand. Also the amount of the bought fabric partly determined the style of the dress. Sometimes there was such a small amount of valuable fabric that the dressmaker could only make an ordinary style dress out of it: narrow sleeves, a seam at the waist and a widening hem with six pieces.

A common feature for both the tailor and the dressmakers was that garments were made according to contemporary fashion. However, they were not creators of fashion as such. Fashion pictures and articles of tailors' magazines were strict guidelines to the tailor and his clients, and the tailor made replications of those designs. The dressmakers designed and created new styles themselves. The dressmakers' clients also participated more to the design process than the tailor's male clients. Some of the dressmakers' clients designed their dresses themselves. Individuality of the garment was more important to the dressmakers' clients. The dressmakers shaped garments only with darts and seams, but in tailoring, pressing and moulding was used to shape the woollen fabric. The tailor also drafted patterns individually with the help of instructions in the magazines.

Tailor-made garments were complex in construction. Men's suits have traditionally been constructed with various layers of interfacing and padding to make the suit fit and envelope the body elegantly without a need for controlling undergarments. Women's dresses were much simpler; they had no linings or interfacings and the seam structures were uncomplicated. Interfacings in women's dresses were not used in those days. Women generally wore controlling undergarments under dresses, which partly explains the simplicity of unlined and un-interfaced dresses. Due to the tailors' traditional way of garment making the process was slow and the prices for tailor-made clothes were high. The dressmakers made dresses quite quickly, and they were relatively cheaper.

## Conclusions

The comparison shows that garment making was divided between the tailor and the dressmakers according to gender, the different traditions and values in design and manufacturing of men's and woman's clothes as well as the types and structural differences in the clothing. Traces of tailors' ancient guild rules and centuries old division can be seen in garment making. Men used to make the important clothes while women sew women's wear and shirts, trousers and underwear for men. For men, tailoring was a respectable profession whereas for women, sewing was a way to earn living (see Hollander 1995, pp. 66–68; Vainio-Korhonen 1998, pp. 113–189; 2002, pp. 39–41). When little boys wore clothes made by women, bigger boys growing towards manhood started to wear tailor-made clothing as a part of achieving adult masculinity. At this stage of life the deep, old divide between male tailoring and female dressmaking became evident (Burman 1999, pp. 1–18). Women could make shirts, trousers and underwear for men, but suits were made by male tailors. Tailor-made suits were valued high and also expensive to purchase. Only a professional tailor could make a suit, but dresses could also be made at home by skilful women.

The tailor's profession includes a lot of hidden knowledge: like in the old guilds, knowledge has passed to one another orally, not in a written form. Maybe that is why the structures of tailor-made garments have remained rather similar for a long time. Learning them has been imitation and reproducing, not developing new ways of making garments.

There are many reasons for the decline of bespoke tailoring. The style of men's suit has been sober and serious and nearly the same for two centuries, which has helped the industrialization of suit making. Bespoke tailoring also declined because the clients of tailors and the tailors themselves were followers of temporary fashion rather than creators of their own style. Therefore a bespoke suit was not a different option; it was not very different from the suits made in a clothing factory. Hand made production was slow and expensive, and therefore it was easier and cheaper for clients to buy ready-to-wear garments. Also changes in clothing and consumer habits influenced the decline of bespoke tailoring. Men started to use less formal wear and different kinds of clothes, not only suits every day.

During the 1950's and 1960's most of the Finnish tailors had to close down their workshops and change business. However, both Kuusinen Ltd. and Tailors' Trade Union with their publications and courses tried to help bespoke tailors to survive longer in the changing society. Presumably dressmakers in the countryside did not receive the kind of help tailors did, but their clients were used to custom-ordered dressmaking and they were interested in fashion and individual well-fitting clothing which helped the dressmakers' trade survive better.

Ready-to-wear and made-to-measure suits become common in Finland much later than for instance in Britain or the United States (see e.g. Ugolini 2000, 2003; Honeyman 2003; Zakim 2003). A common feature between Finland and the afore mentioned countries was the way in which individual, tailor-made suits gradually changed to mass-produced suits that were made in factory production lines by women. Also the manufacturing of suits became a business of merchants instead of tailors.

## References

- Burman, B. 1999. Introduction. In Burman, B. (eds.) *The Culture of Sewing. Gender, Consumption and Home Dressmaking*. Oxford: Berg, pp. 1–18.
- Hollander, A. 1995. *Sex and Suits. The Evolution of Modern Dress*. New York: Kodansha International.
- Honeyman, K. 2003. Following suit: Men, Masculinity and Gendered Practices in the Clothing Trade in Leeds, England, 1890–1940. In Burman, B. and Turbin, C. (eds.) *Material Strategies. Dress and Gender in Historical Perspective*. Malden, MA: Blackwell, pp. 56–76.
- Kaipainen, M. 2008. "Ken tilauspukua käyttää, hän herrasmieheltä näyttää". *Eteläkarjalainen maalaisvaatturi ja vaatturitoiminta Suomessa 1920–1960-luvuilla*. ("He who wears a bespoke suit, does look like a gentleman" A South Karelian Country Tailor and the Tailoring Practice in Finland from the 1920s to the 1960s) Joensuun yliopisto. Kasvatustieteiden tiedekunnan tutkimuksia n:o 125. [http://joypub.joensuu.fi/publications/dissertations/kaipainen\\_tilausepukua/kaipainen.pdf](http://joypub.joensuu.fi/publications/dissertations/kaipainen_tilausepukua/kaipainen.pdf)
- Karisto, A., Takala, P. & Haapola, I. 1998. *Matkalla nykyaikaan. Elintason, elämäntavan ja sosiaalipolitiikan muutos Suomessa*. Helsinki: WSOY.
- Kuusisen Uutiset ("The News of Kuusinen"), published by wholesaling firm Kuusinen Oy ("Kuusinen Ltd"). Annual volumes 1928–1962.
- Lappalainen, P. & Almay, M. 1996. *Kansakunnan vaatettajat*. Helsinki: WSOY.
- Tilastokeskus 2007. *Rahanarvonkerroin 1860–2006*. [http://tilastokeskus.fi/til/eki/2006/eki\\_2006\\_2007-01-17\\_tau\\_001.html](http://tilastokeskus.fi/til/eki/2006/eki_2006_2007-01-17_tau_001.html). Suomen Tilastollinen vuosikirja 2004. [http://pxweb2.stat.fi/joecat.joensuu.fi:8080/sahkoiset\\_julkaisut/vuosikirja2004\\_suppea/html/julkaisu.pdf](http://pxweb2.stat.fi/joecat.joensuu.fi:8080/sahkoiset_julkaisut/vuosikirja2004_suppea/html/julkaisu.pdf).
- Ugolini, L. 2000. *Clothes and the Modern Man in 1930s Oxford*. *Fashion Theory: The Journal of Dress, Body & Culture* 4 (4), pp. 427–446.

- Ugolini, L. 2003. Ready-to-wear or Made-to-measure? Consumer Choice in the British Menswear Trade, 1900–1939. *Textile History* 34 (2), pp. 192–213.
- Vaatetustyöläinen (“Garmentworker”). 1920/1. Published by Suomen vaatetustyöntekijäin liitto (“The Trade Union of Garment workers”).
- Vaatturi (“Tailor”), published by Vaatturiliitto (“the Tailors’ Trade Union”). Annual volumes 1899–1969.
- Vainio-Korhonen, K. 1998. Käsien tehty – Miehelle ammatti, naiselle ansioiden lähde. Käsityötuotannon rakenteet ja strategiat esiteollisessa Turussa Ruotsin ajan lopulla. *Historiallisia tutkimuksia* 200. Helsinki: Suomen historiallinen seura.
- Vainio-Korhonen, K. 2002. Ruokaa, vaatteita, hoivaa. Naiset ja yrittäjyys paikallisena ja yleisenä ilmiönä 1700-luvulta nykypäivään. *Historiallisia tutkimuksia* 213. Helsinki: Suomalaisen kirjallisuuden seura.
- Zakim, M. 2003. *Ready-Made Democracy: A History of Men’s Dress in the American Republic, 1760–1860*. Chicago: University of Chicago Press.

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## PARALLELS IN THE EVOLUTION OF CRAFT AND AUTHENTICITY

### abstract

*Craft is often articulated as authentic, whether this occurs in the experience of the maker, or whether it is embodied in some way in the object produced. The notion of authenticity itself however, has not received critical attention within the field: therefore this paper presents a literature review which illustrates the ways in which craft's fundamental working philosophy seems to have shifted to mirror the evolution of authenticity itself. To start, an account is given of important recent developments in the philosophical concept of authenticity, drawing on the writings of Ferrara (1998), Golomb (1995) and Guignon (2004) to demonstrate a radical shift away from the dichotomies of romanticism and functionalism. The paper then goes on to illustrate the ways in which contemporary craft practice can be said to reflect this shift, attempting to overcome the broad clichés of authenticity commonly attached to it. It is proposed that while craft has had a history of exemplifying authenticity, from the medieval to concerns with workmanship and quality, and through Romanticism to modernist idealism, that it in its current emphasis on a critical engagement with an expanded understanding of material, it offers a radically authentic model of creativity applicable across diverse contemporary domains.*

**keywords:** *authenticity, philosophy, oscillation, hybridity, evolution*

### Introduction

The ideas presented in this paper have evolved through the author's recent doctoral research into Craft as a methodology for the development of wearable technology concepts (Kettley, 2008). This research responded to a need for an analysis of the potential benefits of Craft as a discipline to new and emerging creative practices, and identified authenticity as an important but ill-defined concept commonly associated with it. While the author cannot claim to be a philosopher, it is hoped that this introduction of the topic will stimulate further debate and an increased understanding of the ways in which Craft is written.

Authenticity has become something of a double edged sword for Craft: on the one hand it acts as a compelling promotional conceit used indiscriminately by the advertising industry to sell anything from music to beer and children's cereals (Cochrane 2004, Nestle UK Ltd 2007) (figure 1); on the other, it has infamously served to keep the discipline firmly below Art according to a Cartesian (and religious) hierarchy of mind over matter (Veiteberg 2004).



Fig. 1 Nestle cereals advertisement, UK, “*Knitted by nanas*”; Carlton Draught advertisement hoarding, Australia “*Handcrafted by big machines*”, reproduced with kind permission, Grace Cochrane

### Emerging concepts of authenticity

There is no need here to go over the familiar historical ground covered in depth by, for example, Lucie-Smith (1984), Pye (1968) and Greenhalgh (2003), other than to note that the literature on authenticity is similarly structured: the shift from communal pre-modern craft to the heroic individualism of modernity was predicated by a complex set of contingent intellectual, social and ethical developments between the sixteenth and eighteenth century (Williams 2002, Guignon 2004). Religious and ethical thinking were emerging from the upheaval of the Reformation<sup>9</sup>; science increasingly emphasised the necessity of the objective observer and a view of the world with man at its centre<sup>10</sup>; and urbanisation created new social spheres that increasingly differentiated between public and private spaces<sup>11</sup>. These factors, completely changing “Western civilisation’s understanding of the world and the place of humans in it” combined to form what we know now as the modern worldview of Western Europe (Guignon 2004, p27). In this view, “the validity of norms, theoretical statements about nature, and institutional arrangements” came to rest on

9 In the early 16th Century, Martin Luther protested against the sale of indulgences by the church and against elaborate rituals for spiritual salvation, instead preaching that man should look inwards to the intensity of personal faith and devotion – religious individualism focuses on the one to one relationship with God – “The distinction between true inner self and outward, bodily existence makes it possible to look on one’s body, feelings and needs as things... distinct from oneself” (Guignon p29-30) – to belong to the earthly world is then to be deprived.

10 Science - Weber’s ‘disenchantment’: what is knowable is transformed from a murky world of mystery to a system of interrelated push-pull causal interactions – Galileo’s vision of the world as a universe of material objects acting and being acted upon. “The objectified and mechanized view of things can arise only for a knowing subject who has stripped off all prejudices ... and is able to adopt a detached, impartial, dispassionate view of things” (Guignon p31). Man becomes the measure of all things, and knowledge becomes power (Sophists and Francis Bacon in Guignon, p32-33), as the viewpoint of this universe becomes predicated on Cartesian space, seen from a single viewpoint at any one time, and transparent (and therefore truthful) in its illusionary perspective.

11 Society – Falling plague death tolls meant population shifts as villages failed to support growing numbers of inhabitants, feudal guild systems began to breakdown, while voyages of discovery and new trade set the scene for capitalism (Guignon p28), increased social and geographical mobility, and the emergence of New Monarchies and new wealth in the capitals of Europe (Wrigley 1985). Society became seen as a space of artificial existence separated from the truth of the inner self, which increasingly depended on the architectural arrangement of space to express itself at differing levels of intimacy; the social sphere came to be understood to demand a multiplicity of roles played out as on a stage.

“their capacity for reflecting the objective order of the world”, and Reason itself was therefore “conceived of as objective” (Ferrara 1998, p2).

#### Individualism: Romantic authenticity

The dominant worldview described above was reversed by the individualism of Romantic thought, in which closing the gap between what was actually felt and what was avowed was understood to be the authentic goal. Truth was seen to reside in personal responsibility not so much to others in society, but to the emotional state of the inner self. Trilling (1972) and Guignon (2004) both begin their accounts of this shift with the writings of French writer and philosopher Rousseau in the Eighteenth Century. For Rousseau, it was the inner essence to which one must remain true. According to him, society and reflection represented the greatest threats to such individualism, which could only be fully free in the “state of nature” (Guignon 2004). As long as expression was spontaneous, the individual would be unable to hide falsity. However, new heterological models of authenticity are now emerging in an attempt to engage with the problems caused by this deep dichotomisation. These include Ferrara’s work on ‘reflective authenticity’, the configuration of authenticity as a ‘social virtue’ and Guignon’s subsequent efforts to “bring to light the social embodiment” of authenticity (2004).

#### Tenacious dichotomies

Having come (reluctantly in some cases) to the conclusion that universalism and individualism are but two sides of the same coin, that is, each dependant on an imposed separation of mind and body, of inner apprehension and outer reality, philosophy is currently seeking a new way forward. On the one hand, it is not feasible to return to a medieval or classical account of authenticity, on the other, we are not yet at the point when we know what awaits us ‘on the other side of the fjord’ (Ferrara 1998). A relatively recent sea change in philosophy which may well contribute to this problem is that shift in thinking termed the linguistic turn (Hacker 2005). Applied loosely by Richard Rorty in 1967 to a collection of post war philosophers, first in England and then increasingly in the US, this denoted a broad agreement on three points, namely that:

- there can be no philosophical understanding without the investigation of the language relevant to the problem at hand
- metaphysics, positing itself as language independent and objective, is an illusion
- the role of philosophy is not merely to clarify or improve the language of science

This important change has made possible new approaches to authenticity, one example of which is ‘reflective authenticity’ (Ferrara 1998). Accepting the implications of the linguistic turn such an approach can take account of narrative in its acknowledgement of the “heightened reflexivity” of today’s world, and casts the spontaneous creation of the self not as inherently authentic, but as “a performance option” in itself (Coupland 2003, p.426, Ferrara 1998). Rousseau’s “wound of reflection” is no longer seen as authenticity’s downfall in its destruction of spontaneity, but has become a constitutive part of it (Coupland 2003, p.424). Finally, recent accounts agree that authenticity is can no longer be considered metaphysical, but are instead to be found in the humanistic processes of commitment and reciprocity (Brett 2005, p78, Golomb 1995). Authenticity is shown to be a cultural construct much like any other, without meaning if there is no-one else present to confer authentic status upon one’s actions.



There are then two important points to note about the state of authenticity today: its apparent inauthenticity, and its dissolution of dichotomous systems through its cyclical nature. Žižek sums up the first condition neatly: “Insisting on a false mask brings us nearer to a true, authentic subjective position than throwing off the mask and displaying ‘our true face’ ... the only authenticity at our disposal is that of impersonation, of ‘taking our act’ (posture) seriously (Druckrey, 1998). The second condition of authenticity is its cyclical nature: authentic experience may be defined as that process of engagement with authenticity in which new meaning is forged. It is a model of oscillation between dualisms and a dissolving of dichotomies, an iterative system in which “authentic processes produce authentic situations” (Clothier 2005).

## Craft

Having described how authenticity is currently being written as a worldview, it remains to be considered how authenticity is manifested in craft as experienced by makers, consumed by an audience and written in theory. This paper concentrates on the object and by extension the discipline of craft: the experience of making has received a great deal of attention in the literature already, some of it touching on authenticity (Wilson 2007, Penney Burton 2007), and we are all aware of the power of tacit knowledge as a defining characteristic of the field (Dormer 1997, Greenhalgh 2003). This is certainly a topic that should be developed further, but for the moment I focus on the reception of craft.

### Beyond dichotomy

Craft objects have the capacity (and have always had the capacity) to segue between transparency and reflection; they have always occupied, even constituted a unique place between art and life, available for the authentic aesthetic experience, yet part of the ongoing flow of authentic pragmatic action. They are rhythmical in their cultural configuration as well as in their internal formal organisation. They retain elements of the traditional model and of the modern, combining somatic and narrative experience in a smeared simultaneity. Contemporary craft as it is engaged with the world around it, social, formal and political, can thus be dynamically configured as its traditional romantic self, in its modern guise as art, and as experimental intervention. More than this, these identities are not fixed – one work can be any of these things at any time, and will shift among them, combining them in different ratios according to audience, user and context of gaze and use. In particular instances, experiences with craft objects might be described as an oscillation between the near (the familiar and the domestic) and the far (the strange and the esoteric)<sup>12</sup>, between disappearance and contemplation, between sensual and critical appreciation, while at a macro level, craft as a discipline can be said to occupy a position of semi-autonomy, “essential in contemporary culture” (Mazanti 2006, p.3), echoing clearly the terminology and characteristics of authenticity and authentic experience<sup>13</sup>.

Craft objects allow a context for “moving in and out of the experience” and for a heightened awareness of somatic experience, found to be constituents of authentic experience (Rahilly 1993, p.62). Their undecidability encourages openness to experience and engenders processes of meaning making rather than presenting predetermined significations, two qualities Rogers found in authenticity (Rahilly 1993). And

12 This is reminiscent of Benjamin’s *aura* in *The Work of Art in the Age of Mechanical Reproduction* (1936).

13 The literature being looked at in *Interaction and Experiential Design* draws on Dewey’s *Art as Experience* (1934) for example, and emphasises holistic concepts such as *flow* to be found in psychology.



importantly, the processes of craft, craft objects and their modes of consumption, are unified by a dissolution of dichotomies (useful/aesthetic, reflective/transparent, flow/event), that is identified as being key to authenticity (Kettley 2008, Sandywell 2004)<sup>14</sup>. Bearing in mind this assertion, the following are proposed as criteria for this type of authenticity in craft before examples are given in contemporary practice:

- active engagement between actors resulting in new meaning
- processes of interrogation
- negotiation of hybridity
- the dissolution of dichotomies
- object/subject, inside/outside, individual/social,
  - essence/appearance, form/content,
  - reflection/disappearance, *theoria*/praxis, abstract/concrete,
  - cognitive/pragmatic, universal/particular,
  - viewing/performing, active/passive, thinking/doing
- situated outcomes of interrogation

#### Threads in an expanded field

Explicit examples of hybridity and heterogeneity in contemporary craft can increasingly be found in an expanding field of practice. Action research based projects explicitly seek to remove the apparent hierarchy at work between the perennially naive user and the artist as expert (Astfalck et al 2004, Craftspace 2007) (figure 2), while interdisciplinary approaches require a high level of openness and empathy between disparate working philosophies, motivations and cultures of expertise<sup>15</sup> (Kettley 2007, 2008, Nobel Textiles 2008) (figure 2).

Critical engagement with ready-mades challenges cultural hierarchies constructed around art, craft and design and hybridises the experience of work so often predicated on a reading of the maker's relationship with his materials (Jönsson 2008). The dichotomisation of the everyday and the event is being addressed in the curation of shows such as *Out of the Ordinary* (Adamson 2007) (figure 3) in which scale, dexterity and the 'gift of time' (Kälviäinen 2000, Leigh 2002) confront normative expectations of the comfortable in craft. Ethnographic and reflexive studies of craft practices are a surprisingly recent development, conscious of the entrenched belief, no doubt, that to study a subject is to kill it (Baudrillard 1983). However, like Baudrillard these investigations challenge both the fallacy of that line of argument for 'purity', and the complacent notion that craft can survive without reflection (Gates 2007, Harper 2007, Penney Burton 2007). The emergence of significant academic discussion through such conferences as *Challenging Craft* (2004), *New Craft - Future Voices* (2007), *Neo Craft* (2007) and *Crafticulation* itself (2008) is in itself a welcome symptom of this important shift in the explicit inscription of craft as an important cultural phenomenon, dispelling the myth of the honourable tradition of silence (Dormer 1997), and demonstrating that it is far from an anachronism to both talk about and practice craft (Harper 2007, Gates 2007).

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14 Discussion of these is beyond the scope of this paper, but in short, a handmade textile object was evaluated as a product prototype with carers of young children for its materiality, and a small survey of jewellers was conducted to draw out perceived cultural values in the making processes used. These are covered in detail in Kettley (2008, p63-64).

15 For the sake of brevity, this includes the growing interest in science and new technologies, and collaborations across sub genres of craft as well as collaborations between craft and other creative domains.



Fig. 2 from the catalogue, *At Home II*; *Made in the Middle*, an action research project (left)  
*Suicidal Textiles*: Carole Collet and Sir John Sulston, Nobel Textiles Project (right)



Fig. 3 Spectacular craft: Lu Shengzhong  
*Out of the Ordinary*, V & A and Crafts Council exhibition, 2007 - 2008

## Conclusion

These examples illustrate a trend towards new forms of authenticity, but of course the craft process has historically been valorized for its immersive qualities. Indeed, it can be argued that craft has always been

authentic on the basis of the flow experienced by the maker, that breaking down of compartmentalized time and space familiar to all makers. The ontologically level relationship between maker and material (both source material and material being worked) is relevant here, but increasingly important is the ontological relationship between the maker and the world beyond stylistic inspiration and formal resolution. That is, matters of concern are shifting and becoming more outward looking as ‘material expands to include the political and the social (Latour 2008). When craft takes its responsibility seriously in this way, it can truly be said to be authentic.

### Acknowledgements

The author wishes to acknowledge the invaluable contributions of the academic and technical staff that have supported her PhD research at Napier University, the Speckled Computing Consortium, Scotland and Edinburgh College of Art. She would particularly like to thank the department of Architecture, Design and the Built Environment at Nottingham Trent University for continuing to support this strand of the research.

### References

- Adamson, G. (2007). The Spectacle of the Everyday. *Out of the Ordinary: Spectacular Craft*. London: V&A Publications and the Crafts Council.
- Astfalck, J., Paxman, K. & Horn, A. (2004). Whose Jewellery is it anyway? *Proceedings of Challenging Crafts*, Gray’s School of Art, The Robert Gordon University, 2004.
- Baudrillard, J. (1983). (Trans. P. Foss, P. Paton & P. Beitchman). *Simulations*. MIT Press Seiotext(e) Foreign Agents Series.
- Brett, D. (2005). *Rethinking Decoration: Pleasure and Ideology in the Visual Arts*. Cambridge: Cambridge University Press.
- Bursch, N. & Black, A. (2007). Craft Hard, Die Free: Radical curatorial strategies for craftivism in unruly contexts. *Proceedings of New Craft – Future Voices. Past, Present and Future Craft Practice Research*. pp 134 - 144. Duncan of Jordanstone College of Art & Design 4 – 6 July 2007.
- Challenging Craft (2004). *Challenging Craft Introduction*. International Conference 8-10 September 2004, Gray’s School of Art, Aberdeen. <http://www2.rgu.ac.uk/challengingcraft/ChallengingCraft/challengingcraft/challengingcraft.htm#>. Retrieved 09 October 2008.
- Clothier, I. (2005). Created Identities: Hybrid Cultures and the Internet. In *Convergence*, Vol. 11 Issue 4, pp.44–59. London: Sage.
- Cochrane, G. (2004). The Role of the Real. *Proceedings Challenging Craft International Conference* 8-10 September 2004, Gray’s School of Art, Aberdeen.
- Coupland, N. (2003). Sociolinguistic Authenticities. *Journal of Sociolinguistics* 7 (3), 417–431.
- Crafticulation (2008). *Crafticulation & Education: International Conference of Craft Science and Craft Education* 24–26 September 2008. <http://www.helsinki.fi/kktl/crafts/index.htm>. Retrieved 09 October 2008.
- Craftspace (2007). *Made in the Middle: New works in contemporary craft from the West Midlands*. [www.wolverhamptonart.org.uk/assets/userfiles/index.php?dlfile=006273.pdf](http://www.wolverhamptonart.org.uk/assets/userfiles/index.php?dlfile=006273.pdf). Retrieved 08 October 2008.
- Dormer, P. (Ed.). (1997). *The Culture of Craft: Status and Future*. Manchester: Manchester University Press.
- Dougherty, D. (2006). Genuine Ingenuity. *Make* Vol. 07 p. 48.
- Druckrey, T. (1998). Cheap, Fast and Out of Control. *Reflex*. <http://adaweb.walkerart.org/context/reflex/>. Retrieved 17/09/08.
- Ferrara, A. (1998). *Reflective Authenticity: Rethinking the project of modernity*. London: Routledge.
- Gates, D. (2007). Lost for Words: Development in a new language. *Proceedings of New Craft – Future Voices. Past, Present and Future Craft Practice Research*. pp 256-262. Duncan of Jordanstone College of Art & Design 4 – 6 July 2007.

- Golomb, J. (1995). *In Search of Authenticity: From Kierkegaard to Camus*. New York: Routledge.
- Greenhalgh, P. (Ed.). (2003). *The Persistence of Craft*. London: A & C Black.
- Guignon, C. (2004). *On Being Authentic*. London: Routledge.
- Hacker, P.M.S. (2005). Analytic Philosophy: Beyond the Linguistic Turn and Back Again . <http://info.sjc.ox.ac.uk/scr/hacker/docs/Beyond%20the%20linguistic%20turn%20.pdf>. Retrieved 19 September 2008.
- Harper, P. (2007). The Poetics of Making. *Proceedings of New Craft – Future Voices. Past, Present and Future Craft Practice Research*. pp 63 – 71. Duncan of Jordanstone College of Art & Design 4 – 6 July 2007.
- Jönsson, L. (2008). Turning Hierarchies Upside Down: The use of design objects as a craft material. Presented at *Craftification & Education Conference*, University of Helsinki September 2008.
- Kälviäinen, M. (2000) The Significance of ‘Craft’ Qualities in Creating Experiential Design Products. In *The Design Journal*, Vol. 3, Issue 3: 4-15
- Kettley, S. (2007). Craft and Collaboration in the Field of Technology. *Creative and Cultural Skills Sector Skills Council: Creative Choices*. <http://www.creative-choices.co.uk/server.php?show=ConWebDoc.298&viewPage=1>. Retrieved 08 October 2008.
- Kettley, S. (2008). *Crafting the Wearable Computer: Design process and user experience*. Doctoral Thesis, Napier University, Edinburgh. <http://www.scribd.com/people/view/1478920-sarahkettley>. Retrieved 16 July 2008.
- Latour, B. (2008). *A Cautious Prometheus? A Few Steps Toward a Philosophy of Design*. Keynote address, Networks of Design International Conference, Falmouth University, 3-6 September 2008.
- Leigh, M. (2002). Time Investment as a Value in Contemporary Western Craft. *Journal of Design History*, 15(1):33-45.
- Lucie-Smith, E. (1984). *The Story of Craft: the craftsman's role in society*. New York: Van Nostrand Reinhold.
- Mazanti, L. (2006). *Super Objects*. Ph.D thesis. Denmark's Design School / the National Academy of Fine Arts, School of Architecture, Copenhagen.
- Nestle UK Ltd (2007). *Knitted by Nanas*. <http://www.knittedbynanas.com/>. Retrieved 08 October 2008.
- Neo Craft (2007). *An International Conference on the Crafts and Modernity*. <http://www.neocraft.ca/>. Retrieved 09 October 2008.
- New Craft - Future Voices (2007). *New Craft Future Voices International Conference*, Dundee June 2007. <http://www.newcraftfuturevoices.com/index/home/>. Retrieved 09 October 2008.
- Nobel Textiles (2008). *Nobel Textiles: Marrying Design to Scientific Discovery*. Press release. <http://www.artshub.co.uk/uk/news.asp?sc=&sId=174166&catId=9>. Retrieved 09 October 2008.
- Penney Burton, J. (2007). Going with the Flow. *Proceedings of New Craft – Future Voices. Past, Present and Future Craft Practice Research*. pp 146 – 152. Duncan of Jordanstone College of Art & Design 4 – 6 July 2007.
- Pye, D. (1968). *The Nature and Art of Workmanship*. London: Design Handbooks.
- Rahilly, D. A. (1993). A Phenomenological Analysis of Authentic Experience. *Journal of Humanistic Psychology*, 33 (2), 49-71.
- Risatti, H. (2007). *A Theory of Craft*. The University of North Carolina Press.
- Sandywell, B. (2004). *The Myth of Everyday Life: toward a heterology of the ordinary*. Cultural Studies Vol. 18, No.2/3, March/May 2004, pp.160-180.
- Sennett, R. (2008). *The Craftsman*. London: Allen Lane.
- Trilling, L. (1972). *Sincerity and Authenticity*. London: Oxford University Press.
- Veiteberg, J. (2004). Hybrid Practice: A Craft Intervention in a Contemporary Art Arena. *Proceedings Challenging Craft International Conference* 8-10 September 2004, Gray's School of Art, Aberdeen.
- Williams, B. (2002). *Truth and Truthfulness: an essay in genealogy*. New Jersey: Princeton University Press.
- Wilson, S. (2007). Craft as Living Force: The influence of the organic theory of nature and Goethe's holism. *Proceedings of New Craft – Future Voices. Past, Present and Future Craft Practice Research*. pp 311 – 323. Duncan of Jordanstone College of Art & Design 4 – 6 July 2007.
- Wrigley, E. A. (1985). Urban Growth and Agricultural Change: England and the Continent in the Early Modern Period. *Journal of Interdisciplinary History*, Vol. 15, No. 4, Population and Economy: From the Traditional to the Modern World (Spring, 1985). pp. 683-728. <http://www.jstor.org/stable/204276>. Retrieved 26/08/2008.

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## QUALITY OF THE MAKER

### abstract

*The subject of this study is the maker's quality as a requirement of making quality. My aim is to deepen the understanding of how it is possible for education to influence on person's maturing into a quality maker. A starting point for the study is in Plato's philosophy, according to which quality can be understood as a manifestation of the idea of good in three kinds of objects: visible world, invisible world, and human action. In the visible word quality, thus, is a question of beauty while in invisible theoretical world it is a question of harmony. In human being and human activity expressions of idea of the good are the sense of right relations, rationality, discernment, prudence, and self-control. For Plato, these features represent as sofrosyne.*

*I will focus on the two levels in the maker's quality: the level of quality assessment as the basic level, and the level of technical production of quality. On the basic level, a human being both holds abilities included in the concept of sofrosyn and has knowledge about the assessed phenomena. With these he or she can estimate the quality of visible and invisible phenomena. This basic level of the maker's quality gives her chances and motivation to learn the skills needed for quality production. In the level of producing quality a human being is a capable and proficient at a certain – usually quite narrow – sector: as a researcher, dancer, graphic artist or as a joiner.*

**keywords:** *quality, tacit knowledge, maker, product quality, crafts*

### Introduction

The present study is a continuation to my earlier reflections concerning the concept of quality, about which I have already published two articles (Kojonkoski-Rännäli 2006 and 2007). In the previous works, I have concentrated on only one aspect of quality, beauty, as the added value that transmits the characteristic of an object and as a feeling experienced by the observer. In the latter, on the other hand, I examined the concept of quality more broadly based on Plato's philosophy, and sought an explanation for the birth and development of quality awareness in humans. In the present work, my attention turns to the quality of the maker. What is a person like whose activity is of high quality and the external results of whose work are high quality products?

Historically, the making of high quality products is connected with handicrafts. In the 1700s and 1800s, quality control in the sense we understand it did not exist – it was not necessary. Artisans and skilled masters, journeymen and apprentices working under the guidance of a skilled master produced the majority of goods. Production was done in small quantities; parts were joined by hand, so that quality assurance was handled unofficially, if necessary at all. Well-made products and high-quality production were considered natural in all respects, since production was in the hand of skilled makers. It was only with the advent of mass production that quality control became a necessity. The war industry was in the spearhead of this development.



Nowadays as well, a top-quality product is often hand-made. David Garvin has defined the following eight dimensions of quality: performance, features, reliability, conformance, durability, serviceability, aesthetics, and perceived quality. He says that products that are good on all these dimensions are often hand-made and extremely expensive, such as Rolex watches and Rolls-Royce cars (Garvin 1988, 49-50, 63). It would seem that production by artisans could be considered one comprehensive guarantee of quality, which applies on a very general level. In that case, the teaching of crafts is in a key position when pondering what kind of quality should be expected from quality makers. Thus, in this study I concentrate on crafts teachers, on researcher of handicrafts and of crafts teaching, and on students of crafts.

The foundation for my research is the conception of quality on a very general level that I have formed on the basis Plato's philosophy (see Kojonkoski-Rännäli 2007). Following Plato, quality can be defined as the manifestation of the idea of good in the world. In the visible world, it is beauty, and in the invisible world, it appears as harmony. Within individuals, in their thinking and actions, it can be seen as a correct sense of proportion, rationality, judgement, deliberation and patience. Plato speaks of these human characteristics using the term *sophrosyne* (Kharmides 160b; 161b; 162a; 170c-d). *Sophrosyne*, together with *beauty* and *harmony*, is knowledge about the entirety of reality. They assist us to structure reality into an orderly entity which seems to be ruled by a certain rationality due to the principles they embrace. As Vartio (2001) puts it, it is the ability to understand the sense of dimension in your own activities.

This type of definition of quality has been classified as transcendental. It describes a natural and timeless excellence which transcends fluctuations in taste and style. It has been said that quality thus defined cannot be analysed – it can only be experienced (Garvin 1988, 41). Other approaches to defining quality, such as product-based, user-based, production-based and value-based, have often been seen as more fruitful than a transcendental approach. It has, for example, been suggested that a transcendental definition limits those who can experience quality to experts and master craftsmen, so that it would not seem to be of much benefit to nonprofessionals or beginners (see e.g. Koskennurmi-Sivonen, Pietarila 2005). However, from the point of view of education and training it would seem essential to define quality on a very general, even transcendental level. Namely, when using other types of definition it is necessary to take into account the interests of the numerous parties connected with the phenomenon, and the definitions disintegrate into descriptions of individual cases. For example, the ethical aspect, which is necessarily a part of human activity, might receive little attention in that case.

However, I do not see any conflict between the various approaches to defining quality. They are all needed. When speaking of the evaluation of the quality of certain products or of their making, we are dealing with the area in question in a very context-bound manner. In this case, we need expertise and know-how of that area. This is attested to by empirical research and the models of recognising and evaluating quality based on it (Koskennurmi-Sivonen 1998, 257; Koskennurmi-Sivonen, Anttila 2006). However, when investigating the ultimate experience of quality and seeking people's motivation for creating quality, we must start from a transcendental definition of quality. Such a definition can make it possible to find a direction for the education of makers of quality, and it also has something to give to novices and beginners.

According to the definition of quality which is the point of departure of this study, *sophrosyne* represents quality traits in people and in their activities. In Section 2, I will examine the concept of *sophrosyne* more closely. In Section 3, I deal with the human ability to experience quality in one's own environment. Section 4 is devoted to contemplations on the ability both to experience quality and to evaluate it. The question is, how can we rise above the 'you can't argue taste' attitude? The ability to evaluate quality requires a great degree of expertise in the area being evaluated. Because a person cannot be an expert in very many areas, it follows that the experience of quality and the ability to produce quality are contextually bound. Everyone must find

their own area of doing; one even could say they must fall in love with it, in order to become a maker of quality. This is discussed in Section 5. As a result of these reflections, I bring out two levels of the quality of the maker. The first of these, i.e. the basic level of quality, includes the topics discussed in Sections 2 to 5. The aspects of producing quality, in other words the practical skills of the maker, are discussed in Section 6 and 7. Section 8 is a brief summary of the analysis.

### **Sophrosyne as the motive of making quality**

Sophrosyne as the manifestation of the idea of good is a virtue and ethical principle which exists in the human soul. It is value-bound knowledge about the entirety of reality. It is also, and precisely, community wisdom. By this, I mean those values that the community transfers through education to the following generation. Simone Weil (1952) says that the explicit task of education is to provide the learner with the idea of good, because that is the inexhaustible impetus for activity. It is the motive to make and to act according to the idea of good.

But is sophrosyne the kind of motive for doing good work that modern society wishes to pass on to the following generation through education? Do we want the future makers of quality to have rationality, judgement, deliberation, patience and a sense of proportion? According to Simone Weil, this was not the case in France at the end of the Second World War. She states that “a method of education does not amount to much if it is not inspired by an idea of human perfection. Inasmuch as it concerns the education of a people, this idea ought to be shared by an entire civilization....” (Weil 1952). She refers to four things that above all at that time prevented people from seeing these truths. First, she mentions “our false idea of historical greatness.” “Our conception of greatness is the same one that has inspired Hitler’s whole life,” she wrote. Second, she mentions “the degradation of the sense of justice”, third “the idolatry of money” and fourth, “the absence in us of a religious inspiration”. Weil doubted that “there is a single human being on the surface of the globe who escapes this quadruple defect, and it is still more to be doubted that there is a single one among the white race.”

Professor Pertti Ahonen (2003), a researcher and expert in politics and administration, has said that at a certain time in various cultures and in different geographical regions the prevailing collective worldview includes so-called elements of sentiment. In the present-day extremely liberalist sentimental climate, the pursuit of the individual’s own interests and markets freed of regulations are seen as leading to the greatest good. Of the four obstacles mentioned by Weil, at least the first three, our idea of greatness, a degraded sense of justice, and the idolatry of money, afflict our present sentimental climate. Religious inspiration is also a rare commodity in the modern world, although nowadays we probably would not connect it with these other obstacles. In any case, extreme liberalist sentiments also tint the planning of education and training in our modern society. Nevertheless, quality in the result of a person’s work presupposes a good motive, and if we want to educate maker of quality, we must attend to the motive of performance in particular (Weil 1952). Has the teaching of skills which serve the goal of achieving immediate economic gain, and on the other hand, the planning of teaching aimed at entertaining students taken our attention away from developing the motives needed for making quality to too great a degree? Or could it be that we have not stopped to ponder the concept of quality deeply enough?

### **The skill of making quality is based on the ability to experience quality**

Even though people might be motivated to make quality, it is impossible for them to act according to this desire if they are unable to perceive quality in their environment and if they do not realize what they are aiming at on a concrete level. According to the definition used above, quality is manifested in reality as beauty and harmony. Thus, the future maker of quality must learn to recognize these qualities. A person can only learn to recognize them experientially. They enter our consciousness through experiences. Thus, the maker of quality must have the ability to experience quality. In this case, it is a question of experiencing meanings or significances. When discussing this aspect of the problem, we are in the field of the philosophy of consciousness. My guide in this field is Professor Lauri Rauhala, who since the early 1950s has been studying the nature of consciousness and its role in the way people organize existence and the world around them.

The brain is an instrument in the service of human mentality. According to Rauhala, humans perceive the qualitative information received by the brain as one ingredient in the content of reality. Experience is the basic nature of consciousness and cognizance. It refers to a state in which an open preparedness to experience content prevails. In general, we understand our consciousness precisely through the content of our experience. The content component of experiences forms the conceptual germ from which meaning is contextualized in acts of consciousness at various levels. In Rauhala's analysis, the concept 'meaning' is used very broadly in terms of both scope and content. It includes all the conscious mental contents and experiential feelings which reveal to the experiencer what it is like to exist in the world and what the other beings in that world are like (Rauhala 2007, 23-24). Thus, the meanings we experience reveal to us the qualitative nature of our environment. (See also Näreaho 2007; Kampinen 2007; Lampinen 2007.)

The sensitivity to experiencing quality increases in a quality environment. For example, we learn to experience beauty in the midst of beauty, by allowing ourselves time to experience, by lingering before beauty and by letting beauty speak to us. Thus, we need to practice the ability to experience (See e.g. Gadamer 2000, 50-52). How much emphasis do we give to the practice of this ability which is so important to the maker of quality in our teaching and training? Are the existing learning environments appropriate in this respect? Do we realize how dangerous ugliness, the banalization of the environment, making music into background noise, and in even tastes that are incorporated in our food which do not really belong there, are to a person's developing sense of aesthetics and ethics (Varto 2001, 14-15)?

### **On the evaluation of experience**

If the experience of quality is merely a feeling, a non-analyzable and non-justifiable experience, then the cognizance of quality is a very personal and vague thing. It is a matter of taste, which cannot be argued. When taste is based solely on experienced pleasure, before the act of knowledge, before receiving information about the factors which causes pleasure in the object, it is difficult to discuss taste, let alone argue about it. However, if the goal is that people develop into recognizers and evaluators of quality, we will have to break away from this Kantian view according to which pure disinterested pleasure is a sufficient basis of judging questions of taste. We have to ask whether matters of taste are not indeed worth arguing about, if by arguing we mean discussion consisting of reflective study.

Here I rely on John Dewey's theory that in order to learn from our experiences we must subject them to critical examination. Experiences are the starting point for research and clarification. They require scientific knowledge for their justification. Taste, in the best sense of the word, is evaluation which understands



the true value of pleasure and gratification based on accumulated knowledge and experience. This is the direction in which taste should be cultivated. Dewey writes (1930, 250): “The formulation of a cultivated and effective operative good judgement or taste with respect to what is aesthetically admirable, intelligently acceptable and morally approvable is the supreme task set to human beings by the incedents of experience.” Would this not require giving much more importance to topics providing an all-round education at the basic education level in all subjects? How could we make better use of the skill cultures that influence the society around us in our teaching, since we know that master artisans have developed in just such cultures?

On the other hand, we must not forget that the knowledge that cultivates our taste and experiences is not all produced by those around us. When conscious human activity has been examined within the framework of quantum physics, it has been shown that human experiences should be used more than previously as a source of knowledge. Since a large part of real reality would seem to exist outside the physical plane, it would be worthwhile developing people’s inner selves and cultivating culture instead of, and in addition to, developing technology. This could mean supporting the inner growth and development of people, and increasing their innate sensitivity and understanding (Kallio-Tamminen 2002, 45).

### **On the love of making**

If the recognition of quality and the ability to evaluate require abundant knowledge and understanding, it is clear that these characteristics are extremely context-bound. Indeed, no one can attain a deep understanding of very many different areas of life. Each person must choose one area in which to become an expert and specialist. When contemplating the border between good and bad taste in different areas of life, Professor Altti Kuusamo laments that there is nothing we can do if, for example, the cello soloist sneaks out of the theatre after performing a wonderful concerto to admire cheap trinkets at a local kitsch shop (2008, 11). People are only able to set criteria for quality in their own area of expertise. It is only in that particular area that a person can truly know what is good and bad quality. Based on this, it can be assumed that from the point of view of developing makers of quality it would be fortuitous if growing persons could begin to concentrate on those areas of making that are especially interesting to them at an early stage, in addition to and alongside receiving an all-round education.

However, an increase in knowledge and expertise does not necessarily always lead to a sense of quality. Knowledge may remain at a superficial level, and judgements made based on such knowledge may be unjust. This is particularly true when the object of knowledge and evaluation is not personally important to the evaluator. According to Simone Weil (1953), knowledge brings us closer to the truth only when it concerns something we love. Truthful knowledge about a thing a person loves helps them to be just when evaluating it. These two factors together, love and truthful knowledge, lift evaluators above their own selfish motives, as it were. In this sense, justice is “clear-sighted love.” It sees in the object of its love that which it should be in order to conform to its essence (Lindberg 2006, 169-170).

Thus, the object of making and evaluation must be beloved in order for its making to be high quality and its evaluation just. This also applies to studying. David A. Granger brings this out in an interesting way by comparing John Dewey’s theory of learning to the learning experiences reported by Robert Pirsig (Granger 2006, 258-260). All artificial motivation for studying is a frustrating appeal by the teacher to the pure willpower of the disinterested student. The basis for learning and development is true interest, even love, for the subject being studied, and a desire to become ones own self through what one has learned. This provides even stronger grounds for assuming that people should be allowed to direct their efforts toward studying and doing those things that they feel to be their own as early as possible.

### On practical skills

Above, I have outlined four characteristics of a maker of quality: motivation for doing good work, a sensitive ability to experience quality, a love for making and for the object of making, as well as clear-sightedness and justice when evaluating quality in one's own area of expertise which results from deep knowledge and expertise. However, with these characteristics alone it is not yet possible to implement a single idea, using any material with any technique. In addition, the maker of quality needs abundant knowledge of materials, tools (including those that are a part of the maker's own physical being) and techniques, as well as practice in the skills of making. I call these characteristics related to knowing and doing practical skills. They are those abilities and skills based on the control and exercise of the maker's own physical being through which makers implement, make visible, audible and/or touchable, tasteable or smellable their ideas and thoughts. According to Heidegger (1985, 16-17), by using one's skills (*techne*) a person reveals from *physis*, the wholeness of existence, something that could not come forth by itself.

These skills are practical prerequisites for the implementation of one's creativity. They have often been called manual skills, practical skills, dexterity and even handiness when discussing the making of artefacts in the field of utility articles or visual arts. These skills also include strength, agility, speed, endurance and balance, especially when the making is a matter of creating a dance or making musing using an instrument (Monni 2004, 165). Practical skills are characteristics which usually come to mind first when we think of the quality of the maker of a quality work. Such a maker can do good work. However, as was shown above, the full-time study and practice of practical skills should be started only when students have found and chosen their own area of making. Finding and choosing this area is only possible once the student has got acquainted with the area in question in its quality manifestation, in the sphere of influence of its skill culture (Syrjäläinen 2003, 58), and learned to appreciate and evaluate it as well as become fond of it.

As the practical skills of the maker develop, the student's attachment to the work and enthusiasm for self-development increase and deepen, for skill leads to a strong feeling of mastery and opens new possibilities in one's own area of making. "After you pick up skill, welding gives a tremendous feeling of power and control over the metal. You can do anything," Robert Pirsig has his main character say in his book *Zen and the Art of Motorcycle Maintenance* (1974, 175). This type of personal relationship with what one does, caring for one's work, prevents unnecessary rushing. The maker does not wish to rush away from the work at hand, but wants to work carefully and completely. Working becomes more pleasurable enjoyment than trouble (op cit.). Timo Klemola (2004, 40) describes this type of skilful making by referring to Heidegger. He says that we are present as our own selves and as we are, not only as our heads or consciousness. We are present as whole persons, as our body and our mind, in which no analytical thoughts arise. This makes comprehensible Heidegger concept of thinking as handiwork. In handicrafts, makers loose themselves in their doing with their hands. There is no distinction between the maker and the object of the making. There is only a kind of event of being, in which a new phenomenon/object is revealed from the meeting of the maker and the material. Although this may sound mystic, we know that it is a familiar and everyday experience to many, says Klemola.

### Practical skills as a tool for transcending oneself

When engaged in this type of activity, a person's being is authentic being-in-the-world, to use Heidegger's terms (1996). This means that such persons take care of themselves and of their own mode of being. When a person is his inauthentic self, he is 'the man on the street'. He does not see his own possibilities nor, in the

middle of his concern and busyness, make those decisions that affect him. In order to find his authentic self, a person must, according to Heidegger, receive confirmation of his ability to be-in-the-world. Listening to the voice of one's conscience which springs from one's own self is this type of confirmation. The conscience referred to by Heidegger is not an externally imposed thing, but is part of human nature. It challenges and encourages the person to redirect himself toward his full potentiality. Heidegger (1996) calls understanding and accepting this challenge and then making choices accordingly resoluteness. It is this resoluteness by which the person moves ahead "over himself", toward his ownmost potential (Monni 2004, 117-118, 120).

Susanna Lindberg (2006, 164-165), who has studied the concept of life in German idealism, says that Heidegger did not base resoluteness or authentic being-in-the-world on a cognitive relationship with the world, but instead interprets them as activity, which in turn is based on a relationship with the Self or conscience. In this case, the principle of action is practical virtue, in other words, the call of the conscience. Using Heidegger's Nietzsche lecture notes from 1938-39, Lindberg explains Heidegger's interesting interpretation of Nietzsche's laws that sustain life. It is not a question of merely banal self-preservation, but instead the constant transcendence of Self mentioned in Heidegger's book *Being and Time* (*Sein und Zeit*). At the same time, it is justice as a human virtue. However, this is not a virtuous life in the Christian meaning, for example, but practical skills and excellence in the sense of *aretē* or *virtus*. It is the motive that makes people strive and practice with intense concentration to be able to do ever better whatever they are doing. It opens up to makers new attractive goals as soon as they complete the previous task with honours.

One explanation for the source of this human motivation to try endlessly to transcend oneself can be found in an essay entitled *Circles* written in 1841 by the American philosopher Ralf Waldo Emerson (1803-1882). In the following, I will examine that essay briefly. A review of Emerson's philosophy is also appropriate here because the essay in question has been suggested as a basis for the central hypothesis of the will to power in Nietzsche's later philosophy (Rydenfelt 2008; Kovalainen 2008).

Emerson (1902) describes life as a set of circles which are changing and constantly expanding, and in which the outermost circle is always born from the nearest inner circle. In these circles of life, people not only achieve their goals, but also surpass them. On the basis of completed tasks, they see new challenges and possibilities opening up. In the process of doing, people gradually approach that which they might be, become their true selves. More than being performers of work in the world, people are an allusion to what they should be. The continuous striving to excel oneself and to reach higher achievements also leads to an insatiable thirst for recognition and to competition among people. People are not distinguished in this competition for the amount of wisdom or knowledge they themselves possess, but for the skills they have in taking advantage of existing knowledge and wisdom in their doings. Thus, people must develop and practice their skills in order to keep up with the ever-expanding circles of life. This type of circular progress and expansion is without a doubt apparent in human life and the world in general if we examine, for example, the history of top sports or technology. This law that sustains life, the human drive to excel oneself, can be said to be the motive for doing on the level of producing quality. It drives people to long-term practice and development of their skills in the area they choose for themselves.

## Summary

Based on this analysis, we can distinguish two levels of the quality of the maker. The first I call the **basic** level of maker quality. This level includes motivation for doing good work, a sensitive ability to experience quality, a love for making and for the object of making, as well as clear-sightedness and justice when evaluating quality in one's own area of expertise which results from deep knowledge and expertise. The

task of education is to develop in the future maker of quality the abilities included in the meaning of the term *sophrosyn*, i.e. a sense of proportion, rationality, judgement, deliberation and patience. In addition, the maker should receive theoretical knowledge and experience in the appropriate area of special interest.

The second level of quality of the maker is the level of producing quality. This level includes those practical skills by means of which makers are able to act in a quality manner and produce high-quality external results through their work. This requires abundant practice and training in practical doing. This is possible because makers have continuous motivation to transcend themselves springing from their life drive, a desire to always do better, as long as they can work in the area they have themselves chosen as their own.

Based on this study, we can say that more attention should be paid to the order in which the various components of the quality of the maker are presented and to the magnitude of the entities in which these components are taught in education and training at each level. It is also important to develop training so that students are able to become acquainted with that area of making which specifically interests them and to specialize as early as possible. This is not a question of guiding the division of labour due to economic factors or gender, but of supporting the development of individuals on the basis of their gifts and inclinations. One of the most important factors in the training of makers of quality is the quality of the educational and learning environment. It is almost impossible to overestimate their significance. It is also clear that the quality characteristics of the trainer in the area in question are also involved here.

## References

- Ahonen, P. 2003. *Vireällä mielellä. Ymmärtämisen ja eettisyyden mielialat*. Tampere: 23° 45 Niin & näin- lehden filosofinen julkaisusarja.
- Dewey, J. 1930. *The Quest for Certainty*. London: George Allen & Unwin Ltd.
- Dewey, J. 1999. *Pyrkimys varmuuteen*. Tampere: Gaudeamus.
- Emerson, R.W. 1902. *Essays. First Series*. London: George Routledge and sons, 279 – 300.
- Gadamer, H-G. Kuvataide ja sanataide. In Arto Haapala ja Markku Lehtinen (ed.) *Elämys, taide, totuus. Kirjoituksia fenomenologisesta estetiikasta*. Helsinki: Yliopistopaino.
- Garvin, D. 1988. *Managing Quality. The Strategic and Competitive Edge*. New York: The Free Press.
- Granger, D. 2006. *John Dewey, Robert Pirsig, and the art of living. Revisioning Aesthetic Education*. New York: Palgrave Macmillan.
- Heidegger, M. 1985. *Vorträge und Aufsätze*. Pfullingen: Verlag Günter Neske.
- Heidegger, M. 1996. *Being and Time*. (Trans.) Joan Stambaugh. Albany: State University of New York Press.
- Kallio-Tamminen, T. 2002. Ihmisen tietoisien toiminnan ymmärtäminen klassisessa ja kvantitatiivitehtäyksessä. *Futura* 21 (3), 30 – 46.
- Kamppinen, M. 2007. Tietoisuus – edellytykset ja rakenteet. *Futura* 26. (3), 32 – 36.
- Klemola, T. 2004. *Taidon filosofia – filosofin taito*. Tampere: Tampere University Press.
- Kojonkoski-Rännäli, S. 2006. Käsityön kaunis tulevaisuus. In Leena Kaukinen & Miia Collanus (eds.) *Tekstejä ja kangastuksia. Puheenvuoroja käsityöstä ja sen tulevaisuudesta*. Artefakta 17. Tampere: Akatiimi, 97 – 107.
- Kojonkoski-Rännäli, S. 2007. The concept of quality and the development of quality awareness in crafts. In Marlène Johansson, Mia Porko-Hudd (eds.) *Knowledge, Qualities and Sloyd. Techne series. Research in Sloyd Education and Crafts Science A: 10/2007*. NordFo, Nordic Forum for Research and Development in Craft and Design, 41 – 56.
- Koskennurmi-Sivonen, R. 1998. *Creating a Unique Dress. A Study of Riitta Immonen's Creations in the Finnish Fashion House Tradition*. Helsinki: Akatiimi.
- Koskennurmi-Sivonen, Ritva & Päivikki Pietarila. 2005. Quality Clothes – An Outline of a Model for Assessing the Quality of Customized Clothing. In *In the Making*. Kööpenhamina: Nordes.
- Koskennurmi-Sivonen, Ritva & Anttila, Marja. 2007. Käsityö, laatu ja kestävä kehitys. In Jari Lavonen (ed.) *Tutkimusperustainen opettajankoulutus ja kestävä kehitys*. Tutkimuksia 285. Helsingin yliopisto. Soveltavan kasvatustieteen laitos, 299–308.

- Kovalainen, H.A. 2008. Emersonin filosofinen voima. *niin & näin* 14. (2/2008), 27 – 31.
- Kuusamo, A. 2008. Alati rajojaan ylittävä huono maku. *Tieteessä tapahtuu* 26 (2), 11 – 16.
- Lampinen, A. 2007. Karteesiolaisesta kahtiajaosta kohti vuorovaikutusta. *Futura* 26. (3), 37 – 49.
- Lindberg, S. 2006. Nietzschen elämä ja Heideggerin oleminen. In Backman, J. & Luoto, M. (eds.) *Heidegger. Ajattelun aiheita*. 23<sup>o</sup> 45 niin & näin-lehden kirjasarja. Tampere: Eurooppalaisen filosofian seura ry, 156 – 176.
- Monni, K. 2004. *Olemisen poeettinen liike. Tanssin uuden paradigman taidefilosofisia tulkintoja Martin Heideggerin ajattelun valossa sekä taiteellinen työ vuosilta 1996 – 1999*. Acta Scenica 15. Näyttämötaide ja tutkimus. Teatterikorkeakoulu.
- Näreaho, L. 2007. Ratkaiseeko neurotutkimus tietoisuuden ongelman? *Futura* 26. (3), 6 – 17.
- Plato 1999. *Teokset*. Keuruu: Otava.
- Pirsig, R. 1974. *Zen ja moottoripyörän kunnossapito. Tutkimusmatka arvojen maailmaan*. Suomentanut Leena Tamminen. Juva: WSOY.
- Rauhala, L. 2007. Ihmistajunta tutkivana ja tutkittavana. *Tieteessä tapahtuu* 25. (8), 21 – 26.
- Rydenfelt, H. 2008. Nietzsche ja Emersonin ympyrät. *niin & näin* 14. (2/2008), 43 – 46.
- Syrjäläinen, E. 2003. *Käsityön opettajan pedagogisen tiedon lähteeltä: Persoonalliset toimintatavat ja periaatteet käsityön opetuksen kontekstissa*. Helsingin yliopisto. Kotitalous- ja käsityötieteiden laitoksen julkaisuja 12.
- Varto, J. 2001. *Kauneuden taito. Estetiikkaa taidekasvattajille*. TAJU. Tampere University Press.
- Weil, S. 1952. *The Need for Roots*. (Trans.) Arthur Wills. New York: Putnam.
- Weil, S. 2007. *Juurtuminen. Alkusoitto ihmisvelvollisuuksien julistukselle*. (Trans.) Kaisa Kukkola. From the French original *L'Enracinement* (1949). 23<sup>o</sup> 45 niin & näin- lehden filosofinen julkaisusarja. Tallinna: Eurooppalaisen filosofian seura ry.

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## FASHION AND ARCHITECTURE: INTERTWINED FEATURES IN THE CREATIONS OF KIRSTI KASNIO

### abstract

*This study focuses on four departure elements. 1) In the history of fashion, several famous designers have expressed their particular interest in architecture. 2) Lawson discusses the extent to which designers have common processes and to which extent they vary between domains and individuals. 3) Fashion and architecture are both parts of visual culture. 4) Clothing is conceptualized as an environment and a shelter for a human being. The research question is: How is architectural knowledge intertwined in fashion design? The analysis is based mainly on in-depth interviews with one Finnish architect, scenographer and fashion designer, Kirsti Kasnio. This case study indicates that a professional background in architecture leads to a certain consistency in designing dresses. Kirsti Kasnio applies herself to the task with an eye to freedom of movement and a modern spirit; the system of scale, lines and measurements that results in harmony; the organization of details as related to the whole, and generality and adaptability.*

**keywords:** *fashion, dress, clothing, architecture, design*

### Introduction

The idea of examining fashion and architecture together is not new. At the dawn of human culture, the same materials were used to cover human bodies and to build transportable housing. In the course of time, these fields of human design and construction have differentiated materially and technically, which in turn has influenced their lifespan. Fashion is thought of as ephemeral and superficial, whereas architecture is considered permanent and highly durable (see Hodge, 2007). In the new millennium, conceptual and practical parallels of fashion and architecture have inspired exhibitions and books, and comments on these works (Castle, 2000; Quinn, 2003; Dawood, 2006; Jardin 2006; Hodge, 2007; Menkes 2008).

Fashion (or dress or clothing) and architecture can be connected in several ways: Firstly, it is known in the history of fashion that several famous fashion designers have expressed a particular interest in architecture. For example, as a young man, Christian Dior was interested in architecture, although he studied political science before ending up in fashion design (De Marly, 1990, p. 9). Also, André Courrèges, who finally graduated in engineering, and Paco Rabanne studied architecture (Fashion Forum, 2008). Italian designers Gianfranco Ferré and Romeo Gigli initially trained as architects (Steele, 2003, p. 82). Among the Finnish couturières in recent history, Aili-Salli Ahde-Kjälldman was an architect by education, although she preferred to run a couture atelier from the 1930s to the 1950s (*Muotikuva*, 1/1945; Koskennurmi-Sivonen, 1998, p. 151).

Secondly, Lawson (2006) discusses the extent to which designers have common processes and to which extent they vary among domains and between individuals. His examples come mainly from architecture, but his design theorizing also aims to nurture other domains of design.

Thirdly, it is worth mentioning that fashion and architecture are both part of visual culture. They have always shared certain similarities and common visual elements. These visual examples of the spirit of time have been captured in the photography of Bill Cunningham (1978) and Claës Lewenhaupt (1989).

Fourthly, clothing has been conceptualized as an environment and a shelter for a human being (e.g., Watkins, 1984; Raunio, 2003; Hodge, 2007) comparable to buildings. Clothing is something one can enter and exit, feel oneself at home in, or not so.

This study touches on all these points, but unlike in other studies, I concentrate on one designer Kirsti Kasnio, who was educated in and has worked in both of these fields. The main research question is: How is architectural knowledge intertwined with fashion design?

### **A case study with Kirsti Kasnio**

A case study strategy is used to investigate a contemporary phenomenon in its real-life context. (Stake, 2000; Yin, 2003) While Yin (2003, p. 28) favors the propositions derived from theory, Stake (2000, p. 448) emphasizes the uniqueness of a case. In this study, I have combined these approaches in a way typical of qualitative research: my research interest rises from knowledge that I have acquired from literature rather than from a single theory. This preunderstanding was the basis of the themes that I was prepared with at the outset of the study. However, it did not prevent new views from emerging in the course of the interviews with Kirsti Kasnio.

A case study is typically chosen in order to get a holistic description and understanding of a limited phenomenon, which cannot be manipulated for research purposes. The term case study draws attention to the question of what specifically can be learned from a single case (Stake, 2000, p. 436). The informant in this study is a special case: Kirsti Kasnio is a Finnish architect, scenographer and fashion designer, whose education and work experience were acquired in this order. She offers an excellent opportunity to get information about the design thinking of a fashion designer with an architect's background.

When I consider the interaction of architectural knowledge and fashion design, I do not look at these themes so much from the point of view of visual evidence, although I illustrate my text with Kirsti Kasnio's creations. Rather, I am interested in the designer's own perception of her work and design knowledge. As is usual in case studies (Yin, 2003, pp. 83–101), I used multiple sources of data. I had access to dresses as well as press and television data, photographs, and sketches. However, I held the in-depth interviews in a central position and used the other corpora of data in a secondary position in which they helped in analyzing the oral data.

An open-ended, in-depth interview is a data-collecting method, which can provide great breadth given its qualitative nature (Fontana & Frey, 2003, p. 74). It allows the informant to take up issues from her own point of view and reflect on them as deeply and broadly as she wishes. The role of the researcher is to put forward the themes or questions, which are relevant to the study. In fact, this type of an interview is rather a special conversation as Holstein and Gubrium (2003, p. 3) introduce it. I also share their conception of the interviewer and the respondent as active subjects and animated participants, who construct versions of reality rather than merely purvey data (p. 14). The result is a negotiated accomplishment, which is shaped not only by the researcher but also by the context and situation of data collection (Fontana & Frey, 2003, p. 91).

The two in-depth interviews for this study were recorded in the studio of the informant surrounded by dresses and image data. The interviews were transcribed in detail, and they were complemented later with a few brief but clarifying discussions.



As Stake (2000, p. 436) notes, we may be interested in a general phenomenon or a population of cases more than the individual case, and we understand it better if we know other cases. This single case study is one in a series of studies. The general and wider interest is to know how fashion designers think and work, and how they communicate their design ideas.

### **Fashion designing with the fashion designer's and architect's knowledge**

This study indicates that education and experience in one field of design offers a solid ground for another type of designing and working with entirely different kinds of materials. In this case and all points, it is not necessarily a question of the similarities between architecture and fashion *per se*, but rather long experience in architecture, good general design knowledge, and mature capabilities that are applied.

#### **Experience and consistency**

A professional background in architecture leads to a certain consistency in designing dresses. This can be seen in the designer's work processes as well as in underlying principles that are repeated consciously or unconsciously in her designs. Practically this means a certain end-product orientation – in contrast to process orientation. The designer envisions a dress as in its final form before any visible sketches appear.

The drawn sketches are small, less than 10 cm tall figures. Kasnio adopted the habit of drawing miniature sketches already in her architectural work and she continues it in fashion creations. However, drawings are complemented with another modeling medium, namely draping fabrics on a dress form.

This way of modeling a dress resembles the making of a *toile*, three-dimensional white fabric pattern, traditionally used in *haute couture* designs. However, Kasnio works with pins and dress fabrics, of which there are usually more than one in a dress. This phase of design does not result in a pattern but a model of a dress.

The draping technique is similar to the architect's use of three-dimensional models. Although the material is different, the problem of communicating design ideas to the maker is fairly similar, and it is not necessarily solved with detailed construction drawings. For fashion creations, draped sketches and developing an inventory of patterns together with dressmakers make communication easier.

#### **Lines and measurements**

In both architecture and fashion, there is a certain structure, a partly invisible grid, which holds together the visual elements. "Invisible" implies that this system is not obvious to a viewer in an everyday context, but if someone analyzes the whole of a design, these geometrical principles are readable.

All major measurements are often divisible by three. The structure based on these proportions results in harmony. It is used like the golden section, which appears in nature and which is used in many forms of art, architecture included. Division by three is simply easier to use.

One of the important lines in a human being is a diagonal line. It is either in the dress itself, or at least, the movement of the dress should allow the diagonal line to appear. There are more interesting tensions in a dress, when this principle has been involved than without it. This is natural of a human being. It is related to *contrapposto* (counterpoise), the way in which a human being is described in classic art. A slight S-curve gives the body a dynamic and relaxed appearance.



Diagonals, although different ones, often also exist in architecture. Doors, windows and balconies may seem to follow the logic of straight lines. However, the diagonals can be read in the invisible outline of a building.

### Dress and the body

Similar to a building, a dress usually needs an underlying framework, which supports the surface material, the facade of the dress. In the creations of Kirsti Kasnio, however, this underlying structure is not a separate support on which the dress is built. Rather, it is a vital part of the dress itself, which in turn has a certain relationship with the body. All Kasnio's dresses rest on the shoulders of the wearer, and they are so light that this is possible. The principle of using the shoulders as the supporting points of the dress is based on a personal preference, not on an experience in architecture, but the consistency and consciousness of it may have something to do with designing buildings.

This principle may be best illustrated if it is contrasted with a corset-like bodice, which has been very popular through a decade at least and which places all the weight of the dress on the waist and midriff. This type of a stiff structure—"a court woman style"—would work against the aspiration for lightness and movement of a liberated, relaxed, modern woman.

There is also a certain visual focus, "a centre of gravity", and it is in the upper part of a dress. The portrait-like emphasis includes the fact that the dress leaves space free for jewelry, of which the designer considers earrings to be the most important:

My dresses are like a portrait of this particular person. They are constructed around the face and the upper body. If there is something in the hem, it is to support this upper part. It opens upwards. (Kasnio)

### Generality and repetition

Although Kasnio meets with all of her clients personally and creates many unique dresses, they are not unique in the absolute sense of the word. On the contrary, although individually made, some generality and adaptability for more than one user is a leading design principle, just as in architecture (figures 1 and 2). This is an interesting point, because it differs clearly from the Finnish fashion house tradition (Cf. Koskennurmi-Sivonen 1998; Koskennurmi-Sivonen & Pietarila 2005). Unlike the long-fostered ideal of customized, handcrafted clothing in Finland, Kasnio's fashion creations do not aim for absolute uniqueness:

I do not strive to make solely unique [clothing]. This may have something to do with my background in architecture. Right from the beginning, I have strived for basic designs, which can be modified and made in a small series. They should be able to be used by more than one person. My clients do not want such uniqueness any more. A wedding dress may be an exception. (Kasnio).

### Tridimensionality and environment

Both architectural and fashion creations are three-dimensional structures for people to use. Something happens inside them; one can go into and come out of them. They need openings, and in both of them these openings are very important details. Both buildings and dresses are environments themselves and they are parts of environments. These facts are common to architecture and fashion, and in turn, these aspects differentiate them from almost all other forms of art.

In designing parts of environments a designer must be aware of how her creations relate to existing environments. Kirsti Kasnio highlights the continuity and harmony between pre-existing surroundings. She prefers her creations to have some likeness to and respect for surroundings, rather than standing out conspicuously. This is more important in architecture than in fashion. However, this is applicable to fashion as well, although Kasnio's dresses very clearly represent her own style, which can be easily distinguished from the mass.



Fig. 1 and 2 Two version of the same dress by Kirsti Kasnio, 2005. Photos by Aleksej. Published with permission of the copyright holder Kirsti Kasnio.

#### Contemporary parallels between architecture and fashion

What then are the visual elements of contemporary architecture that can be used for fashion to express the same spirit of time? In Kirsti Kasnio's creations these elements are lightness, transparency, light and air: "something that carries the whole universe around and about the dress". According to Kasnio, on a more general level there are more similarities, such as aggressiveness, for example, but it is not present in her creations.

#### Movement – the difference

What might be an example of a difference between fashion and architecture, something one has and the other does not have? Dresses definitely have movement, while buildings stand still. Movement seems to be highly important in Kasnio's creations, and it is related to the bias cut of material and the earlier-mentioned diagonals.

There is a functional point. When a person moves, air goes under the bias fabric [edge] and lifts the hem with less effort than if you do it from the waist. It would do too, but not with the same effect and

ease. When we talk about a dress that moves beautifully, it functions according to the laws of physics – just like water flows behind a boat. And the diagonals are essentially important for this outline and appearance. (Kasnio)

### What is architectural in fashion?

Brooke Hodge (2007), the curator of the exhibition and the editor of the book *Skin & Bones. Parallel Practices in Fashion and Architecture* relates how she was struck not only by the visual similarities between clothing design and architectural structure, but also by how garments could be more aptly described using architectural terminology. The term “architectural” itself is often used to describe fashion but not always accurately. “Architectural” may refer to heavy understructures and rigid forms, as in the creations of Charles James, or the clarity and modernity of André Courrèges, for example. It may simply mean a pure line free from any unnecessary details, and several other things. “Architectural” is a discursive construction, the meaning of which should be interpreted from the context. What seems to be common to various ways of using the term is a certain positive mode of description.<sup>16</sup>

Are the architect’s fashion creations then architectural? In light of what is now known about the design thinking and architectural knowledge behind these fashion creations, we can say that they definitely are architectural. They are also architectural in the sense of their emphasis on tridimensionality. While all dresses on a wearer are three-dimensional, these dresses have been particularly designed to be interesting from all sides. One can go around them and view them as one views a harmonious building. This type of three-dimensional dress assumes a place and space for itself.

However, if we look again at these dresses, we might describe them as sculpture, especially as pleating is such an essential detail of most of them and it draws attention to the plasticity of the materials. But finally, the fluidity, movement and lightness surpass both of these descriptions. As Dawood (2006) puts it: “Architects envy the fluidity and movement of clothes”. Kasnio does not envy them. She has taken them into the service of fashion.

### Discussion – with Lawson

The studied case serves well as a real-life illustration of Bryan Lawson’s (2006) discussion of the nature of design knowledge, not between individuals but within one individual with education and work experience in architecture and fashion.

Lawson thinks that the engineer’s [or architect’s] knowledge is relatively precise, systematic, and even mechanical, while fashion design is more imaginative, unpredictable and spontaneous. Thus the fashion designer’s knowledge of what is required is likely to be much vaguer. However, he recognizes that descriptions of this kind are to some extent caricatures (p. 4). There may be some truth in his description. At least Kasnio recognizes her consistency as a result of her education and experience in architecture.

The separation of design from construction results in a central role for the drawings. They are useful in communicating with the client and the dressmaker. Lawson distinguishes between design drawings, made as part of the very thinking process called design, and presentation drawings and production drawings (p. 26).

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<sup>16</sup> “Architectural” is mentioned in a number of descriptions of fashion to which I do not refer here precisely. Instead, I would like to credit my colleague Dr. Ana Nuutinen. Discussions with her helped me to summarize the multiple and sometimes confusing uses of this adjective.

For this study, some fashion design sketches and presentation drawing were available but detailed production drawings were not. Instead, there was some discussion about communication between the designer and the dressmaker. In both fashion and architecture, the mutual understanding of the style and nuances of the end product seems to be more crucial than the accuracy of production drawings.

In the light of this study, it is easy to agree with Lawson's statement that one of the essential characteristics of design problems is that they are not apparent but must be found (p. 56): "Design can be seen as a kind of investigation process and, therefore, as a form of research" (p. 119). Indeed, there is a time-consuming and profound investigation of materials and their qualities behind designs. When the design is made for an individual client, the person and her situation in the social world are objects of deep reflection too.

Lawson discusses several ways of studying designers' work. One of them is asking designers to describe what they do. However, he warns against this method for three reasons. First, designers are often not natural communicators with words. Second, they may wish to impress rather than explain and are unlikely to reveal their doubts and weaknesses. Third, designers seem to develop a post-hoc rationalization of the process, which conceals the blind alleys which they went down and shows only a logical progress to what they now wish to present as the "right" answer (pp. 288–289). However, I did not notice any of these problems. The contrast was sharp against the first argument: Kirsti Kasnio turned out to be extremely clear in her verbal expression. She did not seem to wish to impress me or the readers of my research report. Rather, she seemed to be willing to reflect on her work with me. She knows her quality as an architect and her readiness for fashion design by means of design experience, inspiration and investigation. Being relatively new in the field of fashion means more investigation with materials and a search for profound knowledge of patterns, which came up quite openly.

The above-mentioned problems were avoided perhaps in a way, which Lawson describes as follows: Interviewing designers not about individual projects but about their process as a whole in a confidential way can eliminate some of these problems, but it requires even more skill, as well as extensive knowledge of the designers and their work, to carry out meaningfully and is therefore also very time consuming. However such techniques do have value in that they can be applied to experienced, expert and even famous designers who are unlikely to be willing to take part in laboratory experiments. (Lawson, 2006, p. 189)

In this article, I have discussed a case of design thinking. It serves as a separate study of an architect and a fashion designer in one person, and it has its own research interest. Yet, this study is also part of a wider research project *Fashion and Craft in Finland*. Thus, it contributes to the body of knowledge of how designers think and how craft is used in fashion.

## References

- Castle, Helen. 2000. *Fashion + Architecture*. New York: John Wiley & Sons.
- Cunningham, Bill. 1978. *Facades*. Clinton NJ: The Main Street Press.
- Dawood, Azra. 2006. Fashion and Architecture. In Ego Magazine. [http://www.egothemag.com/archives/2006/04/fashion\\_and\\_arc.htm](http://www.egothemag.com/archives/2006/04/fashion_and_arc.htm). 23.06.2008.
- De Marly, D. 1990. *Christian Dior*. New York: Holmes & Meier.
- Fashion-forum. <http://www.fashion-forum.org/fashion-designers/> 17.10.2008.
- Fontana, A. & Frey, J. 2003. The Interview. From Structured Questions to Negotiated Text. In N. Denzin & Y. Lincoln (Eds.) *Collecting and Interpreting Qualitative Materials*. (pp. 61–106). Thousand Oaks: Sage.

- Hodge, Brooke. 2007. *Skin & Bones. Parallel Practices in Fashion and Architecture*. London Thames & Hudson.
- Jardin, Xeni. 2006. Fashion of architecture, architecture of fashion. In BoingBoing.  
<http://www.boingboing.net/2006/01/16/fashion-of-architect.html> 23.06.2008.
- Koskennurmi-Sivonen, R. 1998. *Creating a Unique Dress*. Helsinki: Akatiimi.
- Koskennurmi-Sivonen, R. & Pietarila, P. 2005. Quality Clothes – An Outline of a Model for Assessing the Quality of Customized Clothing. In *In the Making*. Copenhagen: Nordes.
- Lawson, Bryan. 2006. How designers think. Oxford: Architectural Press.
- Lewenhaupt, Tony & Lewenhaupt, Claës. 1989. *Heijastumia*. (Org. in Swedish *Tidens Tecken* The Sign of Time). Helsinki: Otava.
- Menkes, Suzy. 2008. London exhibit probes parallels between architecture and fashion. *International Herald Tribune*, April 28, 2008.  
<http://www.iht.com/articles/2008/04/28/arts/fbones.php>
- Muotikuva* 1/1945.
- Quinn, Bradley. 2003. *The Fashion of Architecture*. Oxford: Berg.
- Raunio, Anna-Mari. 2003. Rajoja, reunoja, vaatteita ja tiloja (Boundaries, rims, clothes and spaces). In R. Koskennurmi-Sivonen, R. & A-M. Raunio (Eds.) *Vaatekirja (The book of Clothing)*. (pp. 51–76) Department of Home Economics and Craft Science Research Reports # 8. University of Helsinki.
- Stake, R. 2000. Case studies. In N. Denzin & Y. Lincoln (Eds.) *Handbook of Qualitative Research*. (pp. 435–454). Thousand Oaks: Sage.
- Steele, V. 2003. *Fashion, Italian Style*. New Haven: Yale University Press.
- Watkins, S. M. 1984. *Clothing, the Portable Environment*. 2<sup>nd</sup> edition. Ames, Iowa: The Iowa State University Press.
- Yin, Robert. 2003. *Case study research: design and methods*. Thousand Oaks: Sage.

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## DECENTRED MEANING: CERAMIC MATERIALITY - RELOCATING PROCESS AND TECHNIQUE

### abstract

*The authenticity of the artists touch, makes note of craft and applied art discourse where as a consequence of either convention or history substantial focus has been applied to the notion of the hand within practice. This familiarisation with applied art methodology indicates that authentication is ultimately placed with an object where skill can be physically acknowledged as part of the process. The authentication of practice, within this context, identifies with the object and thus suggests a specific communicative hegemony. This is subject to certain identification particularly with regards to meaning and significance within craft. Identification, as a result of adherence to the applied art vernacular, can be justified in a manner of speaking with regards to the object and the skill of the practitioner. This points towards the observation that craft is linked primarily to the physical object and cannot be dematerialised. Such an observation can be confirmed when an artwork can be defined by set structures but what then of the notion of decentred meaning? It is this that re-introduces the question of concept and how it is engaged within the structures of applied art. This paper will examine the notion of decentred meaning and demonstrate that the location of process and technique is being repositioned by the ceramic artist and, most notably, that these elements are being exposed through conceptual activity attached to the materiality of clay.*

**keywords:** Ceramics, process, technique, materiality, conceptual.

### The hand and ceramic practice

Although the definition contains many discourses, a fundamental component of any craft artwork is the substantial use of the hand in creation.<sup>1</sup> This, in turn, has direct association to process and technique where these elements become prominent as a result of the interaction between material and hand. With the progression of time and technological developments, the inclusion of mechanical assistance within the studio has become familiar. Such an inclusion incorporated an acknowledgement that the hand, within craft practice, extends to include automated assistance. Whilst connections can be made with mass-production it is clear that the craft individual is in direct contact with the mechanical device, more often than not, operating as a substitute for the hand. With this important relationship between the physicality of the hand of the maker and the material it is, perhaps, understandable that process and technique feature so predominantly in the evaluation of ceramic artwork. This juxtaposition of hand and process forms the fundamental basis to the act of making,<sup>2</sup> fundamentally a physical act projecting the element of technique and skill. This predominance, however, introduces the notion that this can prove detrimental to the development of those ceramics activities that work to expand the field of applied art. Garth Clark comments upon the occupation with process and technique:

It is clear that ceramics' long held anti-intellectualism and determined empiricism has exacted a heavy price and left us marginalised in a world of art that has become increasingly about ideas, over skill or materials. It is obvious now that the prize for creativity does not go to the potter with the best throwing skills, the most unique glazes or the biggest kiln."<sup>3</sup>

The consequence of devotion towards process and technique, as suggested by Clark, has created a sense of marginalisation. Clark's observation that a link can be made between the devotion to skill and anti-intellectualism is also discussed by Paul Greenhalgh who remarks upon the connection associated to the evaluation of skill in craft:

Often interpreted as the perfection of mechanical techniques, it has been derided as limiting the potential of the mind to generate a truly liberated poetic vision. Skill has been associated with the measurable aspects of visual culture, a thing invented by academics and guilds to provide benchmarks and standards. While many defenders of the notion of skill in the visual arts have denied these limiting definitions, it remains a phenomenon marginalised by its apparent anti-cerebral intent.<sup>4</sup>

These observations by both Clark and Greenhalgh reflect upon the role that process and technique play within the evaluation of ceramics and other disciplines located generically within applied art. In contrast to criticism and theoretical discussion that circulates within fine art discourse, there resides in the applied art arena a predominance with attention to technique, process and skill. This in turn, demonstrates a connection to the material.<sup>5</sup> Yagi suggests a direct commitment to the material clay as the starting point for the creation of artworks. Such a point is reflected in the observation that ideas precede the choice of material and technique within fine art practice. It could be that this stems from the fact that all media constitutes creative potential within fine art and this, in turn, projects the notion of the idea within creative output above that of technique and process. A viewing such as this certainly has resonance especially when clarification of an artwork revolves around the continued discussion regarding fine art and craft status. What place, however, does technique and process hold within ceramics that operate within the expanded field of applied art?

### **Location and significance – craft classification**

The location of process and its significance to evaluation and criticism within ceramics discourse proves problematic especially when establishing the positioning of artworks within the taxonomy of applied art. The expansive scale of artwork, that constitutes the administration as to belonging to applied art ceramics, includes a broad spectrum ranging from ceramic tableware to ceramic installation. Bruce Metcalf describes the fundamental definitions of craft/applied art in an essay presented at the American Craft Council Southeast Regional Conference in 1992. The fundamental classifications offer specific identification of craft structure where artworks are defined in four ways - by use of the hand, medium specificity, use, and historical definition. These classifications are readily available to confirm upon artworks where an established familiarity has been considered. This may, perhaps, be as a consequence of the applied artists continued re-enactment of traditional processes and techniques. Although developments have taken place in ceramics that have introduced expanded areas of practice, most notably automated assistance, the fundamental process of making remains the same.<sup>6</sup> This assertion makes reference to the admission that craft/applied art often revisits the past for ideas, techniques and visual stimuli. Whilst this is true it also needs to be stated that artists work also to establish unfamiliarity within these structures. These are clearly as a result of the expansion and distortion of familiarity.



### Process and technique – evaluation within unfamiliar territory

The ceramic artist's constant search for the unfamiliar results in both a re-grounding of the characteristics that define craft - applied art, and in the adoption of elements that usually exist outside of applied art discourse. The ceramic artist's approach to unfamiliarity and expanding the field of ceramic practice, rightly, will include numerous formats where individuals negotiate certain elements of familiarity. The individual may explore several areas of investigation to include material, object, process, function and history. Exploration of these categories will include works that constitute solely the medium clay but this will, however, also extend to works that engage other media and material. It is within the works that extend the notion of familiar practice that the location and significance of process and technique becomes more difficult to evaluate. The important issue here is the relevance of process and technique to ceramic work operating within this area. With the development of critical language and the progression of ideas-based focused practice, the evaluation of ceramics, in the traditional sense has, overtime, presumably altered. It is at this point where cerebral activity extends beyond applied arts connection with the categories, as defined previously by Bruce Metcalf. To develop this observation further my work *The Deconstruction of Trade* explores the points raised by Metcalf.

### The deconstruction of trade

The work *The Deconstruction of Trade* (fig.1) consists of thirteen plates. The plates depict the deconstruction of the familiar willow pattern design into a reconstruction of an urban landscape. The final plate is then animated and projected on a larger scale.

The evaluation of process and technique within the work becomes complicated if we follow the definitions of craft as presented by Metcalf. The primary element, put forward in respect of a definition, was that the work should be, substantially, made by the hand. This is difficult to administer, as the thirteen plates that constitute the work are ready-made. The manipulation of the images and the application of the transfers, however, was executed by hand. It should be noted that this process is aligned primarily with industrial processes and, therefore, would not demand a high level of process evaluation and skills critique. The animation was also executed by hand and was part of a complicated process but it should be considered that this artform, however, does not originate or reside within craft practice.

If we observe the definition of craft that it is defined by use then the work resides outside of this definition. The final two definitions indicate a connection to craft's past and medium specificity. These two elements can be observed within the work, however, these familiar elements have been repositioned. They are elements in transition. The connection with craft's past can be familiarised to the use of the blue and white willow pattern design but this becomes disrupted when the image becomes animated and is projected onto the wall. This is also the case if we observe the notion of medium specificity as the work moves from ceramic plate to video projection. The application of evaluation of process and technique, in the case of this work, moves beyond authentic discourse and their significance becomes irrelevant in the larger picture of the work.



Fig. 1 *The Deconstruction of Trade* Andrew Livingstone.  
Image © Andrew Livingstone



The location of technique and process, as central to critical evaluation, can be applied to traditional craft discourse where the skill of the hand is prominent. Centrality comes into question when the considered prominent element engages with other dominant criteria. This is predominantly the case within ceramics where contemporary practice engages and encourages the notion of ideas over the skill of the hand.<sup>7</sup> The fundamental aspect of skill still resides but what can be constructed from its residency within the canon of contemporary ceramics? To explore this further I will highlight two visual examples.

### **Tacit: The exposure of process as idea**



Fig. 2 *Tacit* Andrew Livingstone. Image © Andrew Livingstone

In my work *Tacit* (fig.2) I have investigated both process and technique within the installation. I was particularly interested in exploring the location of these two elements and how significant they might become in relation to the work when they are repositioned. In the work *Tacit* process and technique are central, whether the spectator activates the work physically or mentally. In the gallery space the spectator encounters wet clay, which sits upon a work-station. A set of instructions on how to construct a pinch pot are located beside the clay and around the room yellow signs are placed informing the spectator that the space is being monitored by CCTV. The location of process and technique

within the work is relocated to the spectator, as they will become significant dependent upon the spectator's skills when constructing a pinch pot. If the spectator chooses not to construct a pinch pot the elements of process and technique also remain significant as they remain with their conscience. This positioning within the work questions the spectator's own technique and process with regard to making thus fundamentally exposing both elements as concept. That is to say that the idea becomes significant as a result of analysing the skills of the spectator. This work questions the authentic position that process and technique hold within ceramic discourse and aims to relocate them within the expanded arena. When observing an expanded arena it must be noted that clay is central to practice and that is true of the work *Tacit*.

### **Sublimation – David Cushway**

The exposure of both clay and process as contributory to a conceptual position is an activity that is becoming more prevalent within contemporary ceramic practice. This is true of the work *Sublimation* by Cushway (fig.3) where the process of the disintegration of a clay cast head of the artist is portrayed through the medium of video. This is presented alongside a glass tank containing the dissolved head in water. In an interview with Cushway, he remarked upon the critique of his work in general and how he would like to see the focus revolve around the work and the maker's motive, rather than the ceramic techniques used. He pointed to an obsession with process and technique within ceramics and he made a point of the irrelevance

that his work might be fired to 1080 degrees, when the communication of the idea was more important.

This seems to be a common observation and, a consensus seems to prevail within a contemporary framework that the evaluation of process and technique within a ceramic context does not relate to, or is not important to, the artist. The relocation of process and technique when aligned to the materiality of clay does appear, however, to be a practical language with which they were engaged. This, on the whole, seems to be with the movement of the material clay and thus the relocation of process to this very position.

### Decentred meaning – clay in motion

The engagement of the singular material clay remains the central occupation for the majority of ceramic practitioners. Use of clay, within contemporary observation, falls into distinct categories, notably unfired and post-fired. Unfired clay operates as a medium that avoids formalised objectification, and thus the strong emphasis of the hand. This is, perhaps, true when the material is used in its formless capacity where significant change occurs regardless of physical human intervention. There are, however, artists that engage unfired clay to construct works that include the forming of the material into objects. This is more often than not with the intervention of other media. The intervention fundamentally contributes to the sustainability of the material in its plastic form or the disintegration of the object. Both routes place material and process as central factors that highlight the organic and temporal nature of clay. This is, most certainly, true of my piece *Auto-materiality* (fig.4) where the wet slip, contained within a drip bag, is slowly released to deconstruct the unfired figurine.

This temporal nature of clay is also explored in the work *The English Scene* (fig.5) where the time-based activity of unfired clay is exposed. These works may be understood in terms of the conditions of clay within the context of process art or a continuous performance. So, whilst the unfired clay has assumed a number of familiar forms, the focus of the work is placed upon the constant change of the material and the actual process above the skill of the hand. The notion of materiality is, of course, central to the crafts - applied art arena where considerable focus is placed upon individual media.<sup>8</sup> This is intrinsically linked to the physical integration of artist and material<sup>9</sup> and the consequential results of the event. As clearly marked out by Rowley, critical craft theory and debate is ultimately placed upon the object and includes the process and technique of physical application. This observation is certainly relevant to craft - applied art discourse of which *ceramics* is a member. How then can we theorise work that is contained by the collective terminology, that is to say ceramics is part of the applied art canon, when fundamental elements of craft - applied art theory do not encompass totally works positioned within the administered remit?



Fig. 3 *Sublimation* David Cushway. Image © David Cushway



Fig. 4 *Auto-materiality* Andrew Livingstone. Image © Andrew Livingstone



Fig. 5 *The English Scene* Andrew Livingstone. Image © Andrew Livingstone

### Material knowledge

The presentation of clay in unfired form - firstly represented through another medium or secondly when supported by non-ceramic media in either the act of performance or time-based activity - works to dislodge familiarity with clay and question the material itself, more often than not through the object that it assumes. In questioning and exploring the materiality of clay within the constructs of the discipline it perhaps suggests that the notion of *conceptual ceramics* much like *sculptural ceramics* is the product of auto-aggrandisement within its own field.

The symbiosis between object and idea is central to a large proportion of installation works where the actual acknowledgement of skill-based making is particularly insignificant. Peter Dormer remarks upon this in his discussion about, medium, object and idea:

“Almost any object or part of an object can be put into an assemblage and be described as representing anything that assembler cares to say it represents. What is missing is a

congruity between the form and the representation. There is no necessary connection between the medium and the message. It is arguable that much contemporary art, especially installation art, works at this level – the words provide the content and the artefacts are merely pegs. Naturally, in such circumstances, craft knowledge is of secondary or even minimal importance “.<sup>10</sup>

Dormer suggests that there is no necessary connection between the medium and the message and that the object has the capacity to represent a prescribed notion by the artist. This suggestion certainly constructs a valid point that objects exist within complex structures that inform association by familiar recognition.<sup>11</sup> Although Cushway places the familiarity of objects centrally within his works - in contradiction to Dormer's suggestion regarding installation art - he demonstrates a connection between material and ideas, where the tacit knowledge of ceramic is explored and displayed within contemporary practice. This is a point that has been examined in my work *Auto-materiality* where the materiality of clay displays a crucial connection to the idea. In an interview with Cushway we discussed the importance of the materiality of clay especially in this context where it emerged that the success of the idea - or its conceptual significance - was heightened if the spectator could identify with the materiality of clay. This would suggest that an informed knowledge of how the material works would in fact enhance the conceptual element of the work. This was of particular relevance to the process of change, specifically with the unfired material clay, that occurred within the works *Sublimation* and *Auto-materiality*.

### The location of clay – expanded investigation

Within ceramic discourse a critical observation, in the pursuit of an expanded position, is the location of clay as central to contemporary investigation. The exploration of the medium by the artist has been somewhat expanded by an experimentation with installation, conceptualism and time-based activity within the arena

of ceramic practice. This activity can notably be acknowledged to the wider art arena, an observation made by Paul Wood:

“The analytical strand of Conceptual art, linked as it was to a left-wing class politics, was eclipsed by a burgeoning of performance-related activities (often accompanied by video technologies or installations) and frequently underwritten by a politics of identity. This shift lies behind the emergence of the notion of ‘conceptualism’ that has come into currency to describe the range of object-, video-, performance- and installation-based activities that currently hold sway across the international art scene. ‘Conceptualism’ in this sense is effectively a synonym for ‘postmodernism’.<sup>12</sup>

The observation as defined by Wood, certainly indicates that contemporary conceptualism, with its all-encompassing elements, are dominant within the current art arena. These elements are also prevalent within ceramic practice, where Wood’s notion of conceptualism, is explored both through and around the medium. An interesting observation, constructed by Wood, is the reference to the underlying significance of the ‘politics of identity’ especially contained within performance and installation. This notion can certainly be observed within contemporary ceramic practice and, perhaps, can be acknowledged as a primary contributor to the pursuit of the avant-garde.<sup>13</sup> The use of the term avant-garde notably makes reference to the notion of innovation, and the investigation and presentation of new ideas by the individual artist, it is not however to be considered as a construction of a movement within ceramic practice that extends upon the historical relationship to avant-garde art as a movement.

### Clay and the exposure of identity – Cushway’s *Room*

The notion of identity, with regard to ceramic, presents itself as a common factor within contemporary practice. The identity of clay can certainly be familiarised significantly within the cultural domain as the material occupies such a ubiquitous stance. This notion of identity is a central issue to many contemporary ceramic artists including David Cushway, and can be seen specifically in his piece *Room* (fig.6), the artist in this piece explores both the identity of clay and the concept of personal identity. *Room* consists of hand made clay bricks that were installed in his studio



Fig. 6 *Room* David Cushway

Image © David Cushway

space for a year. The bricks constructed a complete floor the exact shape of his studio and were purposely kept damp so as to record all of the surface activity in the space specifically caused by physical action. After the year the bricks were removed and fired thus transposing the activity to a permanent state, recorded and preserved by fired ceramic.

*Room* explores the notion of identity on a number of levels engaging with the significance of clay as used both in construction and its positioning within society as a material that is in direct physical contact with the human body. The physicality of the artist’s identity and his relationship to the material are primarily recorded through the marks made in the wet clay over the designated finite time sequence,<sup>14</sup> the physical elements of his occupation, recorded in an exchange of dialogue between his material and his process of creativity.

### Materiality and the exposure of identity – Auto-materiality

The exposure of process and the physical properties of clay are located centrally within the work of numerous contemporary practitioners, where investigation of material through expanded practice relocates familiarity. My work *Auto-materiality* (see fig.4) explores both the exposure of process and the physical properties of clay to realise a conceptual position. The relocation of familiarity is central to the work and can be observed through the association that is made to the ready-made ceramic figurine in contrast to its replicated image. We are familiar with glazed figurines, they have been part of both the domestic landscape and ceramic history for a considerable number of years – as a consequence we are able to confirm a visual familiarity. Within the work, however, this familiarity is disrupted by the presentation of an unfired replica figurine, which in turn, is fed by its own material through an intravenous drip bag. These elements of disruption within the work aim to construct a challenge to an authentic ceramic position, whilst using familiarity as a transitional tool. This is explored through time-based activity an element directly linked to the materiality of the clay slip. Clay in this state has the capacity to remain liquid and also the potential to move - that is as part of the transformation of clay when it is in contact with air. It is this identity of the materiality of liquid clay that is exposed within the work where reinterpretation and familiarity work towards a conceptual position. It can be noted that in developing a space and location for practical and theoretical discourse based upon this notion, the structures found within the developed discourse of conceptual art present a considerable foundation to the development of a theoretical critique within contemporary ceramics.

### Symbiosis – object and idea

This notion constructs a scenario where the symbiosis between idea and object-material formulate an agenda for conceptual ceramic practice. It might therefore, be said that the term conceptual is not appropriate in this construction of discipline terminology. Certainly if we reconsider Paul Wood's observation around the notion of contemporary conceptualism and that essentially it can be regarded, as a synonym for postmodernism, then contemporary definition is somewhat removed from origination.

With this idea in mind, contemporary ceramic discourse based upon the term conceptual, constructs a critique that acknowledges material and object as integral to the construction of both practical and theoretical application. In this case, the object has become located in a fundamental position where the notion of conceptualism is not focused on the evanescence of the object but on the symbiosis with idea. This notion can be equated to a wider art context as acknowledged in the views of Michael Newman:

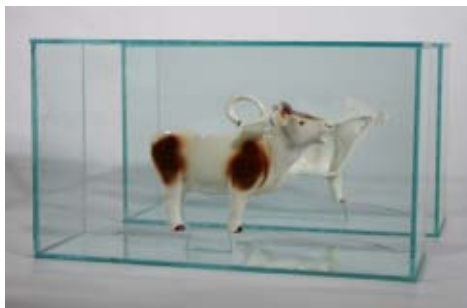


Fig 7. *Creamer Divided* Andrew Livingstone Image © Andrew Livingstone

“What gave the diverse practice that came together under the name of ‘Conceptual art’ their unity, and connected them with the first avant-garde, was the desire to disappear as art object, whether into idea, design or everyday life. The paradox, of course, is that the very institution and discourse that permitted the enunciation of that desire prevented it from being fulfilled. What, therefore, defines post-conceptual art – not art that imitates the look of Conceptualism but that takes its legacy seriously – is the alignment of the desire to disappear with the acknowledgment of the impossibility of disappearing.”<sup>15</sup>

Newman's proposition indicates that a definition of post-conceptual art formulates a positioning of the art object as an element that is unable to evanesce. This is certainly conducive to contemporary ceramics and is rightly evidenced as a continued development where the ceramic artist engages with idea, material and object.<sup>16</sup> It should be noted that it is probably impossible to avoid the element of craft or making within ceramic discourse, where almost exclusively the artist constructs work by fashioning clay in whatever plastic form, into a work that is derived from its non-form mass.<sup>17</sup>

### **Ready-made – repositioned process and technique**

In an antithesis to this position the ready made ceramic object has emerged quite significantly within ceramic practice and the following work references an engagement with the use of the ready-made and its re-presentation. My work *Creamer Divided* (fig. 7) consists of an antique ceramic creamer jug that has been dissected and placed within a glass vitrine. Most notably and purposefully this work makes direct reference to Hirst's iconic piece that places a halved cow in two glass tanks. In the context of this piece the familiarity with the original has been reconfigured to expose several junctures of new meaning. The work aims to question identity and hierarchies in respect of tradition and material values. It is not uncommon to find actual animals portrayed in art practice but there is a distinct absence of this format within material specific disciplines. Instead there is a tendency to operate within mimetic structures whereby it is commonplace to experience reality through imitation. The re-appropriation of the functional ceramic object – transposed to a conceptual tool advocates a repositioning of both process and technique.

The construction of the work was carried out by technicians and bears no trace of the artist, except for execution and realisation of idea. This practical proposition and approach not only advocates the decentring of process and technique, but placates a position of decentred meaning. Of course to realise this we need to return to the previous observation regarding material knowledge and the location of ceramic within craft classification. The idea of the traditional craftsman and the predominant rejection of the ready-made by ceramic artists is still prevalent within the ceramic arena. It is this most probably that contributes to the development of the symbiosis between material and conceptual thinking, as reactive to traditional contexts. A prevailing connection that can be constructed is the dialogue that clay can have with cultural semiosis and particular, with function, shelter, nourishment and warmth, which collectively form the everyday basic tenets of existence.<sup>18</sup>

### **In Conclusion**

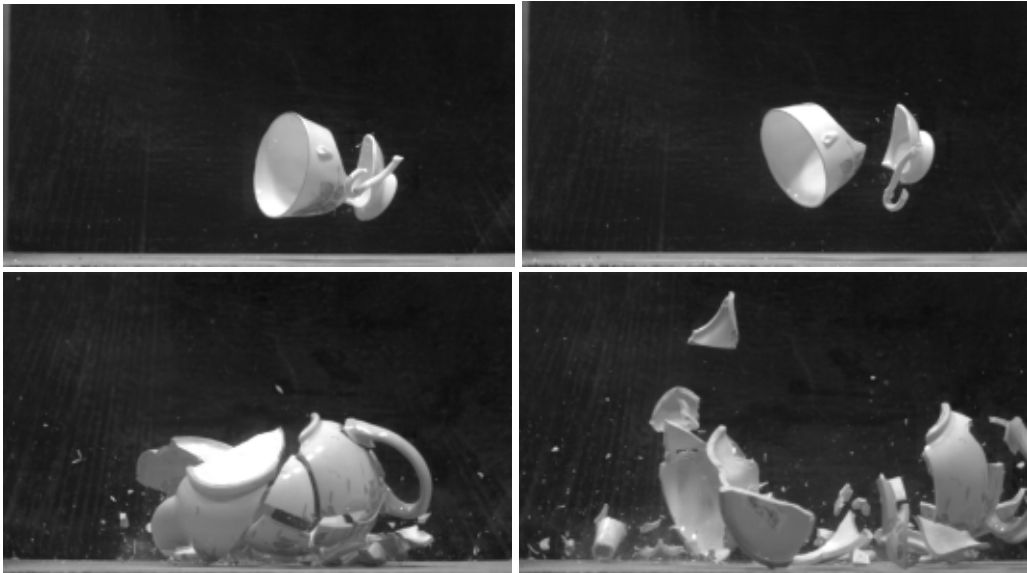
Whilst craft criticism has the ability to evaluate considerable ceramic output - and thus define the importance of process and technique as part of its language - the significance of these elements within the expanded field appear more difficult to locate.

A distinct genre of ceramic artists display a shift in skill and process where the focus of these elements is positioned upon the materiality of clay and, as a consequence, the conceptual significance that arises as a consequence of criticism and evaluation. This approach or decentring is often supported by the intervention of non-ceramic media and formats. If we observe the work of David Cushway (figs. 9,10,11,12) he uses a ubiquitous cup and teapot, store bought, to realise the piece of work. The piece advocates a decentred approach if we use an authentic craft model for application and evaluation and, this raises a number of observations. The ceramic objects are not constructed by the makers hand, but store bought ready-mades – the work is also presented in the format of digital images, not ceramic – if we then consider these two elements, both provide



a contention with vernacular ceramic practice, yet the works are familiar to the ceramic arena. This use of ceramic familiarity appears to be providing a grounding for artists whose interest lies in the alternative presentation of process and technique – in the case of Cushway's work, in the exploration of the capturing and visual articulation of the breaking of ceramic - a somewhat usually alarming event.

Extended examination of material has begun to develop an extended vocabulary for ceramic practice and as such has seen a relocation of process and technique as evidenced in this paper - what this means to ceramic practice in the long term, who can tell, but I am confident it will provide new junctures for exploration.



Figs 9,10,11,12. David Cushway. Images © David Cushway

## Endnotes

- 1 Metcalf, Bruce. (2000) The Hand at the Heart of Craft. *American Craft*, Volume 60, No 4, August/September 2000, p.54-61, 66. See article for detailed discussion about the practical use of the hand, including scientific and psychological analysis discussed within the remit of craft practice.
- 2 Mazanti, Louise. (2004) *Re-reading the Functional: A new position for contemporary craft (or, is there a craft after tacit?)*. Challenging Craft International Conference, Gray's School of Art September 2004, see article for discussion around the knowledge of the artist and material, 'Even more important is that in the work of the hands he finds a special craft knowledge, a tacit knowledge; a tacit knowledge is the knowledge of a specific material, learned by experience and driven by unconscious rules embedded in practice. For this reason, the tacit knowledge cannot be articulated into words.'
- 3 Clark, Garth. (2003) *Shards*. Distributed Art Publications, p.347-348.
- 4 Greenhalgh, Paul. (2002) *The Persistence of Craft. Introduction; Craft in a Changing World*. A&C Black, p.16.
- 5 Kenji, Kaneko. (2002) *The Persistence of Craft. Studio Craft and Craftical Formation*. A&C Black, p.32. See paragraph about the Sōdeisha ceramic movement in Japan established by Kazuo Yagi in 1948, where he comments upon ceramics and the consequence of material commitment, 'Unlike in sculpture and painting, where ideas preceded the choice of materials and techniques, the starting point in ceramics was the medium itself. Our work didn't begin so much from the consideration of form but was led by the nature of clay and the processes used to fashion it. This

- was rather different from what happened in fine art. It was more a question of integrating the ceramic making process with one's own artistic impulses.
- 6 Ibid., p.44. Metcalf remarks upon craft, 'Craft is defined by tradition, after all. Where Modernism stipulated a rupture between present and past, craft proposes seamless continuity'.
  - 7 Dahn, Jo. (2004) Thinking About It. *Ceramic Review* 206 March/April 2004, p.34, see article where Dahn comments upon the area of conceptual ceramics, including reference to ceramic disciplines within educational institutes, 'Colleges all over the world use the vocabulary of conceptualism to signal that they offer the opportunity to explore an exciting, if yet-to-be-defined, new territory'.
  - 8 Rowley, Sue. (Editor.) (1997) *Craft & Contemporary Theory*. Allen & Unwin, p.25, sub quote by Conroy, Diana. Woo. 'The characteristic insistence of the crafts on the materiality, techniques, structures and processes of making can be central to interpreting material culture, theorising representation and inferring meaning.'
  - 9 Ibid., p.25. Rowley discusses the fundamental structure of craft discourse where she states 'Craft-centred theories of representation foreground the materiality of the media, the tangibility of the object in which meaning is inscribed, and the process through which the vehicle of representation is made.'
  - 10 Dormer, Peter. (1994) *The Art Of The Maker, Skill and its Meaning in Art, Craft and Design*. Thames and Hudson Ltd: London. See chapter *Craft Skills and the Plastic Arts*, p.35.
  - 11 Zucker, Saltz, Lizzie. (1999) *Manufacturing Validity: The Ceramic Work of Art in the Age of Conceptual Production*. Art Papers vol. 23 no. 4 (July/August 1999) pp.28-35. 'Today, most contemporary critics' judgements of three-dimensional artworks are framed by the recognition that all things in the world are loaded with specific socio-historical associations, which in turn imply the narratives that engage the viewer.'
  - 12 Wood, Paul. (2002) *Movements in Modern Art - Conceptual Art*. Tate Publishing, p.75.
  - 13 Kuspit, Donald. (2000) *Psychostrategies of Avant-Garde Art, Identification with the Medium – The Consolation of Matter*. 'One of the triumphs of avant-garde art is that it has turned any and every material into a medium, used any and every material as a medium of self-discovery and self-expression, and even more deep, of self-creation.' Cambridge University Press, p.124.
  - 14 Interview undertaken with David Cushway 3/11/05, Cushway discusses his work in detail and notably remarks upon his practice that a fundamental aspect of his research focuses on the 'synthesis between idea and material'.
  - 15 Newman, Michael. and Bird, Jon. (Editors.) (1999) *Rewriting Conceptual Art*. Reaktion Books Ltd. See chapter *After Conceptual Art, Joe Scanlan's Nesting Bookcases, Duchamp, Design and the Impossibility of Disappearing*, pp.206-221.
  - 16 Del Vecchio, Mark. (2001) *Postmodern Ceramics*. Thames and Hudson. See Introduction by Clark, Garth, pp.8-25. 'Postmodernism and ceramics is a marriage made in artworld heaven. This particular nirvana, shielded from modernism's disapproving scowl, is brightly patterned, unconcerned about reverence for authorship or originality, ready to quote styles from the medium's long past at the drop of a slip brush, and prepared to mine every semiotic meaning inherent in clay, glaze, pottery, and utility.'
  - 17 Interview undertaken with Dr Jo Dahn 4/11/05, Dr Dahn expands upon her article *Think About It* in *Ceramic Review* 206 March/April 2004 where she comments upon a number of ceramic artists 'not relinquishing their interest in craft' but 'bringing the idea of making into the realm of conceptual thinking'.
  - 18 Silverman, Hugh. J. (Editor.) (1999) *Cultural Semiosis Tracing the Signifier*. Routledge, p.1. 'Cultural studies provides links for the philosophical, the literary, the historical, the social theoretical, and much more. The study of culture and cultures can be taken as the object of a philosophical inquiry, like the philosophy of art, the philosophy of literature, or the philosophy of history. However, understood semiotically, cultural signs and signifiers inscribe themselves in the very fabric of cultural practices.'

## Bibliography

- Dahn, J. (2004) Think About It. *Ceramic Review* 206 March/April 2004.
- Del Vecchio, M. (2001) *Postmodern Ceramics*. London: Thames and Hudson.
- Clark, G. (2003) *Shards*. London: Distributed Art Publications.
- Greenhalgh, P. (2002) *The Persistence of Craft*. London: A&C Black.
- Kuspit, D. (2000) *Psychostrategies of Avant-Garde Art*. Cambridge: Cambridge University Press.



- Metcalf, B. (2000) The Hand at the Heart of Craft. *American Craft*, Volume 60, No 4, August/September 2000.
- Newman, M. and Bird, J. (Editors.) (1999) *Rewriting Conceptual Art*. London: Reaktion Books Ltd.
- Rhodes, D. (1979) *Clay and Glazes for the Potter*. London: Pitman House Limited.
- Rowley, S. (Editor.) (1997) *Craft & Contemporary Theory*. St Leonards, NSW, Australia: Allen & Unwin.
- Silverman, H. J. (Editor.) (1999) *Cultural Semiosis: Tracing the Signifier*. London: Routledge.
- Wood, P. (2002) *Movements in Modern Art - Conceptual Art*. London: Tate Publishing.
- Zucker, Saltz, L. (1999) Manufacturing Validity: The Ceramic Work of Art in the Age of Conceptual Production. *Art Papers* vol. 23 no. 4 (July/August 1999)

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## THE CHANGING NATURE OF BLACKSMITHING INSTRUCTIONAL SYSTEMS IN AMERICA AND ITS EFFECT ON THE PARTICIPATION OF WOMEN: NINETEENTH CENTURY TO PRESENT

### abstract

*The role of the blacksmith in America has changed considerably over the past two centuries, as have the institutions in which blacksmithing has been taught. Similarly, the participation of women in the field of blacksmithing has undergone significant transformations. The relationship of the institutions that produced blacksmiths to the availability of that education to women reflects many of the social, technical and aesthetic changes in America. Although the institutions in which blacksmithing has been taught have changed considerably, it was the greater transformations in our culture that made this trade as accessible to women as it is today.*

**keywords:** blacksmithing, feminism, craft, education, studio movement

Since colonial times there have been women who wielded the blacksmith's hammer in America. As the education of the blacksmith has changed significantly, so have the perceptions of women's roles. The changing relationship of these two factors combined in the twentieth century to create a generation of women blacksmiths unlike any that came before them.

The American blacksmiths of the colonial period primarily produced functional objects. Although America's early blacksmiths had been trained in the European apprenticeship system, once in America their training was modified to fit the needs of a new country. By the second half of the nineteenth century, the process of learning the trade and the tasks performed by the blacksmith were changing. Industrialization had come to America, and instead of producing tools, the blacksmith turned more to repairing objects made by industry. Only decorative ironwork remained as a place to use the range of traditional blacksmithing techniques, but the majority of those practitioners were recent immigrants<sup>17</sup>. By this time, the apprenticeship system seems to have begun its decline, becoming as short as two years in duration by the end of the nineteenth century<sup>18</sup>. Instead, blacksmiths began to turn more to publications like The Blacksmith and Wheelwright or how-to manuals that became available. By the turn of the century, many blacksmiths were working alone.

Mechanic's institutes for men were meant to replace the dwindling apprenticeship system of manual trades. Manual training schools for women were developed as well, not to replace an existing system as it was for men, but as first-time access to certain training<sup>19</sup>. Industrial education available to women in the nineteenth

17 John Michael Vlach, *Charleston Blacksmith: The Work of Phillip Simmons*, revised edition, (Columbia, South Carolina: University of South Carolina Press 1992) 29.

18 Jeannette Lasansky, *To Draw, Upset and Weld: The Work of the Pennsylvania Rural Blacksmith 1742-1935*, Lewisburg, Pennsylvania: Oral Traditions Project of the Union County Historical Society 1980) 10.

19 Nina de Angeli Walls, *Art, Industry, and Women's Education in Philadelphia*, (Westport, Connecticut: Bergen and Garvey 2001) 41.

century was limited to classes in trades relating to traditional women's spheres such as sewing, nursing, and cooking<sup>20</sup>.

Although there are many references to women smiths during the 19<sup>th</sup> century, they were usually trained by a male family member and only ran a shop themselves if continuing the business after the death of that family member. The instances of women blacksmiths were unusual enough at the time to be regarded as newsworthy, and appeared occasionally in periodicals:

"Sarah Gilson of Gardiner Maine helped her husband in his shop. Reported to be "capable of sustaining the hardest and most protracted labor," she was regarded as an object of some curiosity in the area<sup>21</sup>.

"Considered the equal of any smith in the locality," Miss Minnie Hagmann, of Missouri works at her father's forge "despite the natural weakness and timidity of her sex." Her father had purchased the shop, and when forced into debt and unable to hire a helper, she joined him. She also takes care of the books and collects the bills. "I would rather work in the shop with father than do housework," she states. "I think women can do manual labor the same as men if they are healthy<sup>22</sup>."

Anna Smith divorced her "ornamental" husband because he caroused while she did the work in his shop. Described as the "village blacksmithess" of Muskogee, Oklahoma, she was awarded full custody of their daughter<sup>23</sup>.

Thus, while female blacksmiths were tolerated as helpers within a family, it was not generally considered an appropriate profession for them outside of special circumstances.

The earliest college-educated, female blacksmith found was Miss Tura A. Hawk from Ames, Iowa. She took a course at Iowa State College and received a diploma. The periodical that reported this bit of news in 1916 assured its readers that "her idea of the profession for women is wifedom and motherhood.<sup>24</sup>" In an article that appears four months later, it is announced that she is preparing to open her own blacksmithing shop<sup>25</sup>.

In the beginning of World War I, women were encouraged to enter the lower level industrial jobs in order to free men to do more specialized war work. This limited employment was temporary, as the belief that women were capable of occupying many positions in industry gained momentum. During the depression that followed the stock market crash of 1929, it was harder for women to find work in industry, as so many men were unemployed.

Schools maintaining metalworking shops during the thirties were mainly manual training schools. These trade schools focused on agriculturally related work, with some instances of decorative ironwork done in the students' free time. Those who wished to work ornamentally found more educational opportunities in Europe. Emigrating ironworkers were a major source of ornamental ironwork in the United States in the inter-war years.

During World War II people who had been producing ornamental ironwork transitioned to wartime production. After the war a building boom took place in the suburbs where the cookie-cutter, cape cod style

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20 Melvin L. Barlow, *History of Industrial Education in the United States*, (Peoria, Illinois: Chas. A. Bennett Co., Inc. 1976) 346.

21 "A Woman Blacksmith," *Blacksmith and Wheelwright*, taken from *Boston Globe* XXXIII (1901): 716.

22 "A Sixteen-Year-Old Girl Smith," *American Blacksmith*, 6 (1907): 242-244.

23 "Another Divorce Case," *American Blacksmith*, 17 (1918): 13.

24 "A Young Woman Smith: College Graduate with Advanced Ideas of Home and Marriage," *Blacksmith and Wheelwright*, LXXIV (1916): 363.

25 "She Will open a Blacksmith Shop," *Blacksmith and Wheelwright*, LXXIV (1917): 506.

houses didn't involve decorative ironwork. Thus, the blacksmithing trade did not pick back up after the war as so many other building trades did.

Women were trained for every occupation relating to wartime production, including welding and machine shop work<sup>26</sup>. Wartime training continually challenged previously conceived notions of what kinds of work women could do. In the years that followed, however, they were encouraged to return to their homes and leave their industrial manufacturing jobs to the men coming back from the war. Nevertheless, it would be their daughters who would become the first generation of female artist-blacksmiths in America.

The rebirth of blacksmithing in the second half of the twentieth century occurred more under the auspices of art than of utility. Iron could evoke references to industry on one hand, and mythic nostalgia on the other. Work being done in iron by contemporary sculptors may have influenced the understanding of iron's potential as an expressive media.

Blacksmithing has a history that also appealed to the counterculture: those who wanted to get back to nature and work with their hands. A general craft revival of the 1960's also occurred partially in response to the rise of technology and modernity as well as pop-art's blatant consumerism<sup>27</sup>. Crafts were taught in colleges to fulfill the needs of those who wished to work with their hands. It was also physical therapy for those injured in war. The G. I Bill of Rights allowed many to attend college for free.

In 1964, Title VII of the Civil Rights Act banned discrimination based on race, color, religion, sex and national origin. In 1972, Title IX of the Education Amendment Act banned sex discrimination in educational institutions and programs. The sixties, as a decade of social criticism, led to both the craft revival and the feminist movement.

Post-war craft revival metalsmiths, those educated in non-ferrous metalwork who had been operating since the 1940's, already had college and university programs in place. It was to be through that network of studio metalsmiths that the first academic demonstration of artist-blacksmithing was publicized. Thus, art, the restlessness and social consciousness of the sixties, and the already established studio jewelry movement set the stage for the late twentieth century revival of blacksmithing.

L. Brent Kington is frequently hailed as the man responsible for the start of the blacksmithing revival of the late sixties and early seventies. He was a product of the studio craft movement in jewelry and hollowware, teaching at Southern Illinois University at Carbondale<sup>28</sup>. In 1964 Brent attended the first World Congress of Craftsmen in New York City, sponsored by the American Craft Council. He was struck by the quality of the metalwork in the armor displays, and noticed that many of the same techniques that he plied in the non-ferrous metals were used in steel. Upon his return to Illinois, he located an elderly blacksmith to teach him the basics of tending a fire and some rudimentary forming. The blacksmiths he initially learned form were in their 70's and 80's, having been agricultural smiths for most of their lives.

In 1970 a book by Alex Bealer, *The Art of Blacksmithing*, came out and bemoaned the death of the blacksmith's trade. Brent invited Bealer to give a demonstration at Southern Illinois University at Carbondale where Brent was teaching. Word of the demonstration spread through his connections with the non-ferrous metalsmithing world. Fifty people from out of state showed up. Those who had witnessed the demonstration returned home to build forges of their own and seek out the last of the blacksmiths in their regions.

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<sup>26</sup> Barlow 1976, 359.

<sup>27</sup> Edward Lucie-Smith, *The Story of Craft*, paperback ed. (New York: Van Nostrand Reinhold Company Inc. 1984) 274.

<sup>28</sup> The following remarks come from a conversation with L. Brent Kington, former professor of Blacksmithing at Southern Illinois University at Carbondale, interviewed by the author via phone, 21 April 2004.

Meanwhile, Alex Bealer was so delighted with the results of the first demonstration that he called Brent from his home in Georgia six months later and asked Kington if he would help him set up another workshop. This took place in Westville Restoration Village, Lumpkin, Georgia, on March 16 and 17, 1973. There were 47 participants. Twenty of them decided that what they needed was an organization so that those interested in blacksmithing would have a way to organize and communicate with one another. It was at that time that the Artist-Blacksmith's Association of North America (ABANA) was founded. That event is commonly regarded as the start of the renaissance of Blacksmithing in America. The association has grown exponentially in the years since then, and is the central, organizing force in contemporary blacksmithing education. None of the original 20 members were women, although it is said that women were present that day and that some joined within the first year of ABANA's existence.

Kington opened a blacksmithing shop at the school in Carbondale around 1972. Brent encouraged his students to learn to make tools and try their hand at forging. One could say that his students of the early 1970's were the first in America to experience college level artist-blacksmithing. By 1975 Carbondale had an MFA concentration in Blacksmithing.

In the seventies, there were no centers of blacksmithing left in America; they had to be re-established. No national network remained, so people plying the trade were isolated and generally without much knowledge of each other. ABANA became the new community and common ground for blacksmiths of the revival. The workshops its supports are a significant part of the new educational system of blacksmithing.

The early workshops of ABANA served as a kind of group apprenticeship. Once someone learned a process, they would teach it to others and, in exchange, learn something new from their students. They describe themselves like an extended family, unified by the love of a hard, dangerous, dirty field. No one goes into blacksmithing to get rich, but the field is small enough that there is not too much competition between them. There are many niches available within the trade, and they tend to help each other as a way to keep the field alive. Many of the blacksmiths I spoke with expressed enthusiasm for the next generation, and the number of women taking classes.

The most popular way to learn blacksmithing these days seems to be in workshop situations. With time investments ranging from one afternoon to two years, these schools offer more flexibility and a wider range of instructors than a college program. One can leave their life behind for one or two weeks to get hot and dirty and bang around an anvil without the need to invest in special tools or make a long commitment.

Frank Turley, one of the earlier practitioners of the trade, has been teaching blacksmithing since 1970<sup>29</sup>. He describes himself as mostly self-taught, although he worked with some older smiths and went to a horseshoeing school. Although most of his training was in farrier work, once he opened a shop he started getting orders for fire screens and architectural elements. He saw ads for horseshoeing schools, but none for blacksmithing schools, so he advertised a class.

He did not have many female students at first, but they have made up and average of 8-10% of his classes in the last 10 years. He claims that the only real difference between men and women in his classes is that sometimes women will need a lighter hammer. With the right size hammer, he says, they are like anyone else. As far as he was concerned, all you needed to be in his class was the tuition money. He thinks that the societal changes in general led to the acceptance of women in the role of blacksmith.

Today the ABANA website lists no fewer than 54 schools where one might enroll in a course relating to blacksmithing<sup>30</sup>. In most cases, no prior experience is necessary. Some people still get apprenticeships

29 The following remarks come from a conversation with Frank Turley, Blacksmith and workshop instructor of Santa Fe, New Mexico, interviewed by the author via phone, 26 April 2004.

30 ABANA, "Programs and Schools," <http://www.abana.org/resources/education/schools.shtml>, 19 April 2004.

abroad with European smiths. ABANA also facilitates a journeyman program that is less formal than the traditional European version, but still structured. Once one has acquired the proscribed skill set, one may contract with other smiths as a journeyman to learn new things in exchange for labor.

Women have consistently been a part of ABANA, and during the post-World War II renaissance of blacksmithing, women played valuable leadership roles. Brent Kington guessed that women made up 20% of their membership. He believes that people find the medium that they are most suited for, regardless of gender, and that it is the control of a process from start to finish that draws people to the crafts. He likens crafts people to Baptist missionaries, in that they are happy to convert anyone.

I had the pleasure of communicating with 11 women who are currently practicing blacksmiths. To learn the trade, most of them recommend taking a class or attending a workshop at a non-degree granting craft school. They recommend this as a way to determine if the practice is right for the individual. The women I spoke to received their training through different combinations of mostly informal educational systems. None of them learned from just one situation, benefiting from a variety of educational opportunities of different kinds, depending on their lifestyles and learning choices. These included periods of being self-taught, taking local classes, attending workshop schools, doing informal apprenticeships/being employed by a more experienced blacksmith, and attending horse shoeing school or a community college. Some already had undergraduate degrees in non-ferrous metalworking or sculpture when they began. Their education in blacksmithing has been far less linear than a traditional apprenticeship, and certainly more varied than learning from one male relative or master smith.

When I asked them what had made the field so accessible to women, their replies had much in common. They credited the booming of the craft movement in general, the openness of the field, and the fact that they were not forced into the weaving studios. They felt that the broad new approach to how blacksmithing is offered had no agenda and fewer restrictions. The women's movement made people realize that gender is not a barrier and that drive and passion are what are important. They believe that places like Penland help, because people can try it out without committing. Most of them grew up believing that they could do whatever they wanted with their lives, and have been supported by their families. In the end the sheer number of talented women smiths won out over any potential obstacles. The single barrier that a few believe remains to their gender is strength, but they are quick to say that there are ways around that.

In general they do not think of what they do in gendered terms or as though they are purposefully flaunting social norms. For them it is about the blacksmithing. Nine out of the eleven women I spoke with have taught at some level. The percentages of women in their classes range, on average, from 20% to 50%. Six considered themselves to be feminists, four do not, and one just did not know. It never occurred to most of them that it was unusual for a woman to be a blacksmith.

In conclusion, not only did few college and university programs offering blacksmithing survive beyond the 1980's, it seems that it was the development of the community, mostly around ABANA, that made for a healthy resurgence in this craft. Furthermore, it was the greater changes of society that led to the current acceptance of women. The experiences of these women in undergraduate art programs had little to do with the availability of information about blacksmithing to them. If any aspect of women's acceptance as blacksmiths is particular to the trade, it is the endangered nature of it and the level ground of mutual respect for all those who choose to partake. Although the institutions in which blacksmithing is taught have changed considerably, it was the greater transformations in our cultural perceptions of women's capabilities that made this trade as accessible to them as it is today.

## References

- ABANA, "Programs and Schools," <http://www.abana.org/resources/education/schools.shtml>, 19 April 2004.
- de Angeli Walls, Nina, *Art, Industry, and Women's Education in Philadelphia*, Westport, Connecticut: Bergen and Garvey 2001.
- "Another Divorce Case," *American Blacksmith*, 17 (1918): 13.
- Barlow, Melvin L., *History of Industrial Education in the United States*, Peoria, Illinois: Chas. Bennett Co., Inc. 1976.
- Crawley, Megan, Blacksmithing Area Coordinator, Peter's Valley Craft Center, phone interview with author, 24 April 2004.
- Heinemann, Sue, *Timelines of American Women's History*, New York: Berkley Publishing Group 1996.
- Kington, L. Brent, former professor of Blacksmithing at Southern Illinois University at Carbondale, phone interview with author, 21 April 2004.
- Lasansky, Jeannette, *To Draw, Upset and Weld: The Work of the Pennsylvania Rural Blacksmith 1742-1935*, Lewisburg, Pennsylvania: Oral Traditions Project of the Union County Historical Society 1980.
- Lucie-Smith, Edward, *The Story of Craft*, paperback ed. New York: Van Nostrand Reinhold Company Inc. 1984.
- Mahin's, "Women's Callings," *Current Literature*, XXXIV, no. 3 (1903): 291. "She Will open a Blacksmith Shop," *Blacksmith and Wheelwright*, LXXIV (1917): 506. "A Sixteen-Year-Old Girl Smith," *American Blacksmith*, 6 (1907): 242-244.
- Turley, Frank, Blacksmith and workshop instructor of Santa Fe, New Mexico, phone interview with author, 26 April 2004.
- Vlach, John Michael, *Charleston Blacksmith: The Work of Phillip Simmons*, revised edition, Columbia, South Carolina: University of South Carolina Press 1992. "A Woman Blacksmith," *Blacksmith and Wheelwright*, LI (1905): 687. "A Young Woman Smith: College Graduate with Advanced Ideas of Home and Marriage," *Blacksmith and Wheelwright*, LXXIV (1916): 363.

## Acknowledgements

I would like to extend my sincere gratitude to the following individuals for their help with this research project:

ABANA, Elizabeth Brim, Megan Crawley, Paige Davis, Roberta Elliot, Heidi Nasstrom-Evans, April Franklin, Erica Gordon, Kate Hughes, L. Brent Kington, Susan Madacsi, Dona Meilach, Heather McClarty, Lauren Osmolski, Sarah Perkins, Nana Schowalter, Dorothy Stiegler, Tara Tappert, Frank Turley, Jim Wallace of the National Ornamental Metal Museum in Memphis, Tennessee.

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## HANDMADE MARKETING

### abstract

*The way an object is made can colour our emotional response to it. But how to tell about hand-made products? The purpose of this study is to investigate how craft and design products are marketed in Europe, and what viable forms of marketing might be available. As interpretation background I use Levisons' idea of "guerrilla marketing" and Kotlers' and Tries de Bess' thinking about "lateral marketing". Craft entrepreneurs like guerrilla entrepreneurs will define success by not only the standard notion of finances, but also by the notion of balance between work and self. Lateral marketing is a process, and it is applied to an existing object, and it produces innovation, which in many cases may be a new category, or market. The main source material is the Finnish Crafts Organizations' European survey on craft design product marketing.*

**keywords:** *craft entrepreneur, craft company, marketing, consumer, product.*

### Introduction

Puotila points out that:

"You need to have a clear idea of what you want. You must be able to name your customers, you need to know for whom you are making your products. You also need to give your customers pleasant surprises. You need to be one step ahead and read, as if between the lines, the customers' needs and wishes." (Ruohomäki, 2000, p. 71)

Marketing is an integral part of the product development and production process in the craft and design branch. Craft and design entrepreneurs see marketing as a complex issue. Entrepreneurs also do not have much time or money to spend on marketing. However, in order to be a successful business it is crucial to reach customers. The Finnish Crafts Organization Taito decided to delve into the marketing of craft and design products by collecting data and conducting surveys and interviews in Finland, and also by collecting international data. Most of all, the organisation gained knowledge of which are the most important crafts products and services sold and which are the marketing channels. The data also suggests ways of improving marketing. All in all, the surveys and reports provide a solid basis for further development.

The key issue in marketing is probably how well entrepreneurs are able to communicate about their products to potential buyers. Well thought-out marketing measures help in conveying this message, and systematic marketing is essential when craft or design-product makers want their message heard outside their immediate circle. (Äyväri 2000, pp. 5, 17)



## **Methodology**

The research project employed a combination of a survey and content analysis and the close-reading method. The research material is a European survey studying craft and design marketing (Craft and design marketing in Europe 2007, further European survey). It was distributed by the Finnish Crafts Organization to European organisations in the branch in September 2007. Invitations were sent to 20 countries, and 14 different organisations in 13 countries responded. The number of countries was particularly pleasing and the results can be assumed to give a fairly representative picture of the present marketing situation of craft and design enterprises in Europe. The survey was divided into five sections, which were products and services, marketing channels, renewal of the product and service portfolio, managing the product's uniqueness, quality, production, R&D and customer-orientation, and marketing training needs of entrepreneurs. The respondents to the survey represented organisations that promote craft and design and the responses did not take the point of view of any particular group but rather attempted to present the situation as it currently is. However, it is fair to assume that the responses mainly reflect the views of development experts.

Craft and design marketing in Finland was the subject of a report published in February 2008 (Taitomarkkinointi, Käsityö- ja muotoiluyritysten markkinointi, Net Effect 2007, 'Taito Marketing Survey', further domestic survey), which sought to provide information to support further development. The data, collected through surveys and interviews, was mainly grouped around the same fundamental issues as the European survey. The respondents in the survey included consumers, entrepreneurs, buyers and business advisors.

## **Research results**

The following sections will examine the marketing of craft and design enterprises based on European and domestic surveys.

### **Products for individual outfits and home decoration**

The success factor for a craft and design enterprise is a product that stirs interest in the customer. However, a good product alone is not enough; it also needs to be brought to the customer's attention. Respondents to the European survey (Tervonen, 2007, pp. 6-7) were asked to name the most important products and services sold in the domestic market. To facilitate answering, the survey listed typical product groups and services from previous studies. In addition, there was the open group "Other", which the respondents were asked to specify. The results do not tell the precise share of turnover each of these product groups generates; they do, however, provide an idea of which products sell the most.

Clothing, accessories and homeware emerged as the most important product groups, including jewellery, fashion clothes and different accessories. These are typically products that can be used to enhance individuality. It is also probable that customers are ready to pay more for such products than for mass-produced goods. Nearly as many respondents mentioned homeware, such as crockery, textiles and furniture as the most important product group. The survey does not directly say so, but it can also be assumed that consumers are looking for an individual look or tailor-made products for their home. Gifts also often comprised such things as jewellery and crockery.

The domestic survey (2007, p. 26) to consumers asked which domestic craft or design products the respondents had bought within the past 12 months. The responses showed the product groups to be the same

as in the European data, and were often bought as a gift or to be used at home. The decision to buy was most of all influenced by the product matching the buyer's own style. Quality, design, colours and individuality were also crucial. Practicality was one of the most important factors influencing the decision to buy. Price was also important but not among the most important factors.

In a consumer survey commissioned by the Crafts Council of Ireland (2005, pp. 1–6, and Conroy Consulting, 2005) products were divided into giftware, homeware and products bought for oneself, such as accessories. Life stage, affluence and need, such as wedding gift or equipment for the home, were recorded as factors influencing the decision to buy. Occasions for buying gifts were divided into three types: big occasions, smaller occasions and holiday day trips and treats for the self. Brand name and status were an important factor for big occasion gifts, functionality and style for smaller occasions and reward and remembrance for the third group.

Findings from a Finnish consumer survey (Snell, 2002) revealed that an individual, unique gift is “risky” and requires that the giver and recipient know each other well. A craft and design product with a well-known brand is the probable choice. Valuable and unique products need a kind of an assurance of the product's quality and value, a similar reliability as is created by a brand. “A brand is the most important asset of an entrepreneur, his or her recognition and trust,” says Ruohomäki (2000, pp. 31, 51). A good brand helps to achieve a higher price for the product, to the extent that the higher the special experience aspect associated with the product or its story, the higher the price can be. Standing out is a key factor in competition with industrial products suitable for the same purpose. The fact that a product is hand-made is seldom the only crucial factor for consumers. Handcraft methods make it possible to manufacture very special products and, thus, create the added value that attracts customers. (Luutonen, 2007, pp. 32–33)

For craft and design entrepreneurs, the majority of turnover is created by the sale of material goods but services also play an important role. According to the European survey (Tervonen, 2007, p. 7), craft and design enterprises sell courses, workshops and workshops for special groups in their domestic market. Experience services, such as work demonstrations and guided tours have been turned into products for tourism. The turnover of the entrepreneurs in the domestic survey (*ibid.*, p. 7) was mainly generated by product sales but services also played an important part. Craft products and activities can be turned into wellbeing services. In practice, providing wellbeing services requires building networks with established partners in the field. (Kälviäinen, 2005) The idea of lateral marketing is useful when producing craft services. According to Kotler and Trias de Bes (2003, 78), “lateral marketing is based on seeking an expansion by approaching one or more needs, uses, targets, or situations that we discarded in the market definition of the product or service”.

#### Own workshops and fairs

Nearly all craft and design entrepreneurs sell their products directly from their own workshop, at least to some extent. In all probability sales at fairs and various events have a larger volume than direct sales from the workshop. Direct sales to domestic and international customers are also conducted online via websites. According to the European survey (Tervonen, 2007, p. 8), direct sales from the workshop and domestic fairs are equally important sales channels: both were mentioned by 79% of the respondents. International fairs and events were mentioned as the most important sales channel by 21% of the respondents. Orders received via the Internet were regarded as an important domestic marketing channel by 21%. Likewise, 21% mentioned online shops but 71% felt that online shopping only had minor importance in international direct sales.

Finding out about customers' needs requires contact with customers. Customers can also serve as an excellent information dissemination and marketing channel. (Ruohomäki, 2000, p. 39) Direct sales enable the entrepreneur and customer to meet and discuss the products. Ideally, this leads to product development and completely new ideas for products. Personal contacts make the entrepreneur's products more attractive and facilitate later online sales. In the domestic survey (2007, p. 14), entrepreneurs considered direct sales to customers to be the most important sales channel (61%). Only 35% considered retail sales through a distribution network important and 43% felt that it only had minor importance. Exports were hardly considered important at all.

#### Specialist shops as craft retailers

According to the European survey (Tervonen, 2007, pp. 9-10), specialist and gift shops are the most important retail channels for craft and design products. Craft products are sold at shops specialising in craft and design products, jewellery shops, galleries, and museum and tourist shops. Department stores only have minor importance. Online shops are also a growing marketing and sales channel for unique products.

Specialist and gift shops are a natural channel for unique products, which are often bought as gifts. Some products might also be suitable for interior shops but there is a risk of not standing out in large shops. Selling clothes and accessories is slightly problematic. Consumers might be unfamiliar with buying clothes in a gift shop and an ordinary clothes shop is not necessarily the right environment for individual clothes and accessories manufactured in small quantities. Department stores mainly display craft and design products in their tourist and gift departments, alongside mass-produced goods. Shop-in-shop sales might be a better solution.

#### Challenges in know-how and marketing

Respondents to the European survey (Tervonen, 2007, p. 15) were asked to assess the product and customer know-how of craft and design entrepreneurs. The strongest know-how was deemed to be in the quality of products and services while the weakest know-how was in development of products and services and customer orientation and identifying customer groups. Respondents to the domestic survey (2007, pp. 8-12) felt that they were fairly strong on these issues but according to business advisors there is room for improvement, particularly in customer orientation, product development and the ability to deliver the goods as agreed. The report says that the need to develop business operations in the branch is comprehensive and issues; which, at first glance, might seem to be problems in sales and marketing, are equally problems linked to products, product development and manufacturing processes. (domestic survey, 2007, pp. 8-12)

Improving the marketing skills of the entrepreneurs is deemed very important. Identifying new markets and customer groups was considered the most important issue followed by developing the image of the enterprise and identifying its strengths, commercialisation and productisation of the products, for instance for tourism needs, communication skills, product packaging and product information, pricing and utilising the web in marketing. Development targets were associated with the development of the company and its products, and marketing and web skills. One of the conclusions drawn from the Finnish surveys was also that it is advisable from the point of view of developing marketing to invest in improving communication, in identifying customer groups and in customer orientation. (Luutonen, 2007, pp. 35-36)

Respondents to the European survey (Luutonen, 2007, p. 36) were asked to name challenges in marketing. Changing markets and reaching new customer groups were felt to be particular challenges.

Things were seen as problems rather than opportunities perhaps because small enterprises have limited resources to conduct market analyses and invest in marketing. Entrepreneurs need tailored information on the market situation. Understanding the lifestages and needs of customers could be a starting point for product development. The results of the European survey are slightly conflicting as product quality is seen as a know-how strength but, at the same time, it is felt that there is a need for product development and renewal of the product and service portfolio. Perhaps the respondents meant that the products are usually well-made and the standard of quality is held high but the products are not necessarily attractive and the selection is not renewed sufficiently quickly. Product development could also be viewed in a new way and customers could be included in the process. (Luutonen, 2007, p. 35)

#### Best marketing methods

Similar marketing methods were deemed best in different parts of Europe. Public events, such as trade fairs, were good sales opportunities. Retail networks, co-operation and training bring results. (Luutonen, 2007, p. 36) The Finnish data emphasised the Internet as a marketing tool but the need to improve communication was also seen to apply to traditional media. Consumers called for more media visibility of craft and design enterprises. They felt that the most important development targets in marketing are websites, entrepreneurs' presence at sales events, press articles and a presence at cultural and summer festivals. The starting point for marketing was the company's product. Recognition of the company and its products is built up fairs and other sales events. Most entrepreneurs market their company's products in person. Retailers are essential and usually a key marketing channel for established companies. Most interviewees saw the Internet as an important and growing tool. Customers also spread the word about the company's products. Co-operation between entrepreneurs at fairs and in other contexts makes it easier to achieve presence. (Tervonen, 2004–2006 and Luutonen, 2006)

#### Hand-crafted message to consumers electronically

Ruohomäki (2006, p. 92) points out that thanks to its digital nature, the Internet offers entirely new ways of brand-building, marketing, advertising and selling products, be they big or small. Most respondents to the European survey (Luutonen, 2007, p. 37) estimated that the importance of online shopping will also increase in the sales of craft and design products. However, marketing situations in which buyers can get to know the product with all their senses were also emphasised. Stories and cultural aspects linked to the product can at least partly be conveyed in online shopping. Hand-made products come in all shapes and sizes and because of this, they need different marketing methods.

The Internet was seen as the marketing tool of the future and therefore enhancing Internet skills was seen as crucial. The role of the Internet was even more emphasised in the Nordic answers and particularly in the Finnish surveys. (Luutonen, 2007, p. 37) The Internet makes it possible to reach a considerable number of people with a fairly small investment. This has in some ways narrowed the gap between large and small companies. The message on the web can be formulated very precisely and the form in which it reaches the target audience can be controlled; however success is not inevitable. For instance, standing out among endless messages is a challenge. However, it is well-advised to adopt the web as a marketing channel because the customers are also there. (Levison & Rubin, 1995/1996, pp. 3–9 and Harjula, 2006, pp. 33–36) The amount of information on the Internet is so huge that searchability is a challenge and therefore entrepreneurs need to invest in the searchability of their websites. One alternative is an online marketplace that showcases the

products of several entrepreneurs. Web presence can also be enhanced through the use of blogs and discussion forums.

## **Conclusions**

The Taito Marketing Survey (domestic survey, 2007) revealed that the conceptions of the products and the entrepreneurs' know-how held by craft and design entrepreneurs on the one hand and buyers on the other, differed considerably. This is a natural phenomenon as entrepreneurs see themselves differently than buyers, whose job is to find good products that sell well for the shops they represent. Could the difference also be indicative of something else? Do the maker's idea of what he or she wants to sell and the buyer's idea of what he or she wants to buy match at all? There is probably much more than just marketing at play here. Craft and design entrepreneurs make products that embody their own endeavours. Could craft and design entrepreneurs, who value independence and individuality, listen more to their customers or their representatives, such as buyers, and take them into account more than they do at present? What could true customer orientation be? The ideal case is, after all, when an entrepreneur solves a customer's problem in a creative and innovative way. In such a case, customer orientation goes much deeper than when the entrepreneur only fulfils the customer's wishes. Craft and design enterprises represent creativity. It could therefore be wished that creativity was evident in the entire product development process, including marketing. (Luutonen, 2007, p. 37)

The idea of guerrilla marketing put forth by Levison (1997) is quite close to the way many craft and design entrepreneurs work. According to Levison (1997, pp. 6–11), guerrilla entrepreneurs seek a balance between work and leisure time. It is typical of craft and design entrepreneurs that their work is a way of life for them and their professional identity is closely linked to the design and manufacturing process. Entrepreneurship and self-employment reflect an endeavour to turn a dream into a living. Levison has formulated several typical features of guerrilla entrepreneurs. They know that "the journey is the goal" and that the company is under their control. Guerrilla entrepreneurs are not in a hurry but value producing quality more. Stress is a sign to the entrepreneurs that they are on the wrong track. They love their work and develop their skills.

Guerrilla entrepreneurs do not have weaknesses because they are team players and build networks with people who are skilled in the things lacking in their own skills repertoire. (Levison 1997, pp. 6–11) Finnish craft and design entrepreneurs have traditionally not been thought of as team players but it seems that progress has been made in this respect. The entrepreneur can co-operate with other entrepreneurs in the same branch, network with entrepreneurs and partners in a different branch, or outsource services. (Luutonen, 2007, p. 37) For instance, entrepreneurs quite often co-operate in marketing.

Guerrilla entrepreneurs live in the present but are also aware of the past and the future. They leave outdated technologies behind and live in today. Craft and design entrepreneurs are adopting new technologies but not pioneering them. According to Levison (1997, pp. 6–11), entrepreneurs understand the value of time and do not believe in the phrase "time is money". Instead, they understand that it is much more – it is life itself. Entrepreneurs act according to a plan, and are aware of who they are, what their goals are and how to reach them. They are, however, flexible and able to change direction if necessary. Results are more important than growth, and they continually learn new things, have a positive attitude and are enthusiastic about their work. One of the messages to be learned from guerrilla entrepreneurs is that happiness and enjoyment in one's work can be achieved by ambitiously taking action while honestly assessing one's own skills and building partnerships.

Inspired by Levison, Parantainen (2007) wrote that, “the idea is to generate profits with small investments, use brains more than capital”. Guerrilla marketers study their customers’ buying behaviour and aim at good profits instead of high sales volumes. The report “Käsin tehty tulevaisuus” reached a similar conclusion, one of which was that the entrepreneurs should aim to become profitable but not necessarily large. (Luutonen & Äyväri, 2002, 205). The methods used in guerrilla marketing are often atypical. Guerrilla marketers invest their time, energy and imagination. Entrepreneurs not only need to understand their customers’ buying behaviour but also need to define the core of their business operations. Guerrilla marketers usually focus on small target groups and choose their customers in advance. Marketing includes numerous methods, many of which are free. Guerrilla marketers combine several marketing methods into an efficient whole and aim to create customer relationships. (Parantainen, 2007, 17-18) Marketing in craft and design enterprises is often part of a process carried out by a single person and close to sales.

Seeking creative solutions, guerrilla marketing would seem to be a natural alternative for craft and design enterprises. The products made by craft and design entrepreneurs are not mass-produced goods and it would be well-advised to think of other means to reach just the right customers. Craft fairs are a fairly efficient way. They make it possible to reach the customers directly and entrepreneurs can be there in person to tell about their products and to listen to customers’ wishes.

### **Marketing from person to person**

The European marketing survey showed that marketing methods and challenges are similar in different parts of Europe. Operating in electronic networks was considered particularly important in Finland. The main product groups in all the countries were clothing and accessories, and homeware. They are bought for oneself or often as gifts. The products are deemed to be of high quality but product selections should be renewed. The majority of turnover is generated by product sales. The most important service is organising courses while workshop activities, which are similar, are also important. Services have been turned into products for the tourist industry, and wellbeing services are also sold. It would actually be fair to say that all services in the branch are associated with wellbeing. Services are also tailored for special groups according to their needs. (Luutonen, 2007, p. 39)

The most important direct sales channels are sales from the entrepreneur’s own workshop or shop, and direct sales at fairs and other sales events. International direct sales as well as online sales only have minor importance. Retail takes place in specialist shops, tourist shops, gift shops, jewellery shops and museum shops. Department stores and online shops have minor importance. The best marketing practices listed by the respondents comprised familiar, commonly used methods mentioned above. The short answers do not indicate why a particular method was successful; it is probably also a question of how well various fairs and sales events were put together and how well they were suited to present the products to be marketed. It is probably more about how things are done, than about what is done. The future of marketing was seen to be on the web but simultaneously the respondents expressed the need to display products in a way that allows customers to see and feel them. The extreme ends of the product range – simple, inexpensive souvenirs and valuable unique products – were also mentioned. (Luutonen, 2007, pp. 39-40)

The marketing know-how of entrepreneurs is not considered to be particularly good, and improving these skills is important. There is room for improvement at least in communication skills, pricing, web communications and photography. Many work alone and perhaps better marketing skills would also help to make them aware of the value of professional help, and how important marketing is. (Luutonen, 2007, p. 40)

## Discussion

The messages in the surveys can be summarised as follows: the activity is all about interaction between the entrepreneur and customer, the entrepreneur's ability to discover and understand the customer's needs and meet them with outstanding product and service solutions. Entrepreneurs also need to find ways to make their products and themselves visible. All this requires good interaction skills. It can be difficult to make it on one's own and few people are masters of all things. Entrepreneurs who are experts in their profession and enthusiastic about their work are at the heart of it all. If we were able to see into the future, what would craft and design branch marketing look like in 2020? Or should we end with the fact that the craft and design branch constitutes a significant part of business activity in the creative branch? It is a branch that produces unique, individual, durable products and services for the benefit and delight of people.

All in all, it can be said that the survey gave a fair picture of today's marketing and its development needs, as well as some pointers for future trends. The important message is to make increasingly good and innovative products, which interest customers and answer their needs. The visibility of the craft and design branch needs more investment, and marketing and communications need many new, creative methods. Unique, individual products deserve person-to-person marketing - that is, creativity, innovation, inventiveness, new perspectives, surprises and "pull". Development efforts can encourage entrepreneurs to discover their own personal strengths and to turn them into products and services that can be sold. (Luutonen, 2007, p. 40)

## References

- Craft and design marketing in Europe. International survey on craft and design and service marketing.* (2007). Helsinki: The Finnish Crafts Organization.
- Crafts Council of Ireland.* (2006). Stopress Jan/Feb 06, 4–6. Kilkenny.
- Conroy Consulting analysis.* (2005). Forum consumer research. Ireland.
- Harjula, P. (2006). Verkkoliiketoiminnan tulevaisuuden näkymät. Tervonen, Taina (ed.) *Taito Craftnet -projekti 2004–2007*. Helsinki: Finnish Crafts Organization Taito, 33–36.
- Johnson, R. & Äyväri, A. (1998). *Menestyvä käsityöyrittäjä*. Helsinki: Finnish Crafts Organization Taito.
- Kotler, O. & Trias de Bes, F. (2003). *Lateral Marketing*. Wiley & Sons: United States of America, New Jersey.
- Kälviäinen M. (2005). Matkakartta hyvinvointikäsityöhön. Kälviäinen, M. (Ed.) *Käsityö - yrittäjyys – hyvinvointi. Uusia liiketoimintapolkuja*. Ministry of Trade and Industry. Ministry of Trade and Industry publications 9/05, 15–33.
- Levison, J. C. (1997). *The Way of the Guerrilla. Achieving Success and Balance as an Entrepreneur in the 21<sup>st</sup> Century*. Boston and New York: Houghton Mifflin Company.
- Levison, Ja. C. & Rubin, C. (1995/1996). *Guerrilla Marketing on the Internet. The Complete Guide to Making Money On-line*. London: Judy Piatkus.
- Luutonen, M. & Äyväri, A. (2002). *Käsin tehty tulevaisuus. Näkökulmia käsityöyrittäjyyteen*. Helsinki: Sitra and Finnish Crafts Organization Taito.
- Luutonen, M. (2006). Pajalta verkkoon ja asiakkaille - käsityöalan yritysten parhaita markkinointikeinoja. Verkkoliiketoiminnan tulevaisuuden näkymät. Tervonen, T. (Ed.) *Taito Craftnet -projekti 2004–2007*. Helsinki: Finnish Crafts Organization Taito, 50–56.
- Luutonen, M. (2007). Hand created marketing. In *Craft and design marketing in Europe. International survey on craft and design and service marketing*. 2007. Helsinki: The Finnish Crafts Organization, 29–42.
- Parantainen, J. (2007). *Sissimarkkinointi*. Helsinki: Talentum.
- Ruohomäki, H. (Ed.) 2000. *Käsintehty brandi*. Käs- ja taideteollisuusyrittäjän käsikirja. Helsinki: Finnish Crafts Organization Taito and Sitra.
- Snell, P. (2002). Kvalitatiivinen tutkimus kuluttajien suhtautumisesta suomalaisten käsityöyrittäjien tuotteisiin.

- Luutonen, M. & Äyväri, A. (Ed.) *Käsin tehty tulevaisuus*. Näkökulmia käsityörittäjyyteen. Helsinki: Sitra and Finnish Crafts Organization Taito, 235–244.
- Taitomarkkinointiselvitys*. (2007). Net Effect and Finnish Crafts Organization Taito.
- Tervonen, T. (2004–2006). 'Craftnet product of the month and its maker' interviews. Published at [www.suomentaitoverkko.fi](http://www.suomentaitoverkko.fi).
- Tervonen, T. (2007). Craft and design marketing in Europe. *International survey on craft and design and service marketing*. Helsinki: The Finnish Crafts Organization, chapters 2-7.
- Äyväri, A. (2000). *Käsityöyrityksen markkinointi*. Helsinki: Finnish Crafts Organization Taito.



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## THE CRAFT OF VISUAL ANALYSIS

### abstract

*This paper describes the development of a visual analysis model (VAM) for understanding craft practice through storytelling and aesthetic appreciation. The prototype model was developed from multiple-case study based on the life and work of both historical and contemporary craft practitioners. Although the critical and academic analysis of painting has long been established, no previous attempt has been made to visually analyse craft or to explain it from the perspective of visual intelligence. Such a model would create an alternative discourse to complement existing historical and theoretical approaches to the appreciation of craft. The visual analysis model (VAM) is therefore a process model, which used evidence gathered from both documented sources and detailed examination of actual work in the 'field'. The process model would facilitate an understanding of the craft practitioner's personal philosophy embedded in craft practice and so help to inspire others. The paper concludes with suggestions for the future development of the model.*

**keywords:** *craft practice, visual analysis, aesthetics, case study, process model*

### Towards a language of craft: the basis of the visual analysis model

'In looking at an object we reach out for it. With an invisible finger we move through the space around us, go out to the distant places where things are found, touch them, catch them, scan their surfaces, trace their borders, explore their texture. It is an eminently active occupation' (Unknown)

What we see is contingent on how we see. The critical and academic analysis of aesthetics in paintings is well established, but there appears to be no visual method yet established for analyzing design and crafts.

In Zenism, there are three levels of observation and meditation.

First there is a mountain

Then there is no mountain

Then there is (Zen)

Before one starts Zen meditation, mountains are just mountains. The closer the observation and the deeper one becomes immersed in the thinking practice, the more detailed and spiritual everyday things become. Mountains are no longer simply mountains. They are, instead, a collection of different parts whose appearance can be seen from various perspectives. Finally, at the point of breakthrough, one rediscovers the immanency of nature, finding a new clarity in simple reality. Mountains are again mountains. And so too with design and craft. This philosophy together with Tangram<sup>31</sup> is used as the basis of the visual analysis

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31 Tangram is a Chinese dissection puzzle. It consists of 7 pieces, called tans, which fit together to form a shape of some sort. The objective is to form a specific shape with the seven pieces. The shape has to contain all the pieces and they may not overlap. A solver is given a set of pieces that can be assembled in different ways, in order to produce many distinct geometric shapes. The creation of new dissection puzzles is also considered to be a type of dissection puzzle. <http://>

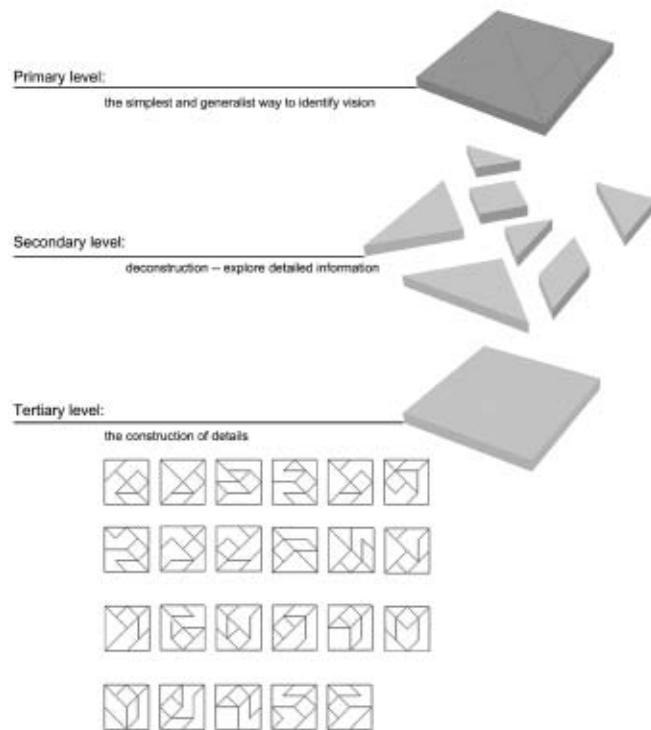


Fig. 1 Three Levels of Visual Analysis Model

model (VAM). The aim of the visual analysis model is similar to fitting together the seven pieces of tans to form a specific shape. The puzzle solver is approving in the process of assembling. As the parts are manipulated into the specific shape, the whole is seen in variety of forms in the seven pieces (Fig.1).


#### Primary level: the simplest and generalist way to identify vision

the notion of seeing at this level is distinguished between ‘observation’ and ‘prehension’<sup>32</sup>, as well as ‘perception’ and ‘cognition’. Seeing as the foundation of observing, requires that we ‘put aside the desire to judge immediately; acquire the habit of just looking’ (Yanagi and Leach, 1972,112). It is a primary awareness of bringing light into solid craft, incorporating space and maintaining a simple dialogue with geometric forms. In this research, four characteristics of seeing were identified as: Light; Spatial and Geometrical Perspective; Composition (Symmetry & Asymmetry) and Flow & Rhythm (Dia.1). These four characteristics comprise the organic requirement for visual perception. For example, with no light, we can not see no image or object.

[en.wikipedia.org/wiki/Tangram](https://en.wikipedia.org/wiki/Tangram)

32 Aldrich notes this distinction as follows: let us call ‘observation’ the perceptual mode in which material things are realized in physical space. Then the very looking at things will be an incipient awareness of their space properties as fixed by metrical standards and measuring operations. Things seen in this way will have a different structural cast from that of the same thing the aesthetic perception of them. Let us call the latter mode ‘prehension’. The aesthetic space of things perceived thus is determined by such characteristics as intensities of colours and sounds.

Diagram 1. The Primary level of ways of seeing: the simplest and general way to identify vision

No.	Comment
1 Light	<p>“Every light is a shade, compared to the higher lights, till you come to the sun; and every shade is a light, compared to the deeper shades, till you come to the night.” (John Ruskin, 1879)</p> <p>The craftsman’s concept of light is arguably influenced by the general human attitude and reaction in two ways, first, ‘practical interest subjects the phenomena of light to selective attention. It eliminates from awareness whatever is common and does not call for action’. Second, ‘the concept relies on the testimony of eye, which deviates substantially from the scientist’s view of physical reality’ (Arnheim, 1974:245).</p>  <p>Fig. 2: The simultaneous contrast effect.</p> <p>In Figure 2, for example, we see the well-known simultaneous contrast effect, which demonstrates a spatial interaction in lightness perception. The two smaller squares are the same shade of gray but the square in the dark surround appears lighter than the square in the light surround. This is, of course, an illusion, which allowed us to consider how lightness illusions can inform us about the perception of light. When looking at visual work in real field, the different amounts and kinds of light, e.g. candlelight, daylight, and electric light influence what we see. Understanding the light conditions will help to provide viewers with an appreciation of the colour phenomenon that differs according to the light and space in which it sits.</p>
2 Spatial and Geometrical perspective	<p>We stand where the works tell us to stand and we see what they choose to reveal. (Holly, 1996:9)</p> <p>It is normally assumed that all images have their space organised in some way, and there are two related aspects of this organisation to consider: the organisation of space ‘within’ an image, and the way the spatial organisation of an image offers a particular viewing position to its spectator. Perspective depends on geometry of rays of vision, and eyes are central to this geometry. The level of the eye is always the same as the horizon of a work. It is also the level at which the rays of vision converge at what is called the vanishing point (Rose, 2001). Geometrical perspective also creates the depth on a flat panel.</p>

3 Compositions: Symmetry and Asymmetry	<p>There are two categories of structural composition. One is symmetrical pattern (1), which is a geometrical mirror form, the other, is asymmetrical pattern (2). All the compositions that do not fit into the first category will go to the second.</p> <p>People can often intuitively identify a composition, whether it is a symmetrical or asymmetrical, when they first glance at a visual work. The composition analysis is concerned with obtaining the general and principal pattern of the entire work. By dividing and organising the image into fixed geometrical shapes, this helps to identify both visible and invisible geometrical patterns.</p> <p>The principle of symmetry and asymmetry, as well as repetition and variation, play an important role in craft composition. Repetition and contrast are the basic tools for connecting two or more elements; the first by means of identity, the second by absolute difference. Symmetry and asymmetry work with identity and difference simultaneously.</p>
4 Flow and Rhythm	<p>There are two subjects in this category being analysed, that of flow and the driving force of the flow</p> <p>The flow in a visual art is made up by the variety rhythms in the work. The rhythm could be described as the usage of repeated line, shape, colour, texture, or pattern. For visual analysis, rhythm helps to explain how craft practitioners create structural organisation in their work according to how humans see form, pattern, shape, or total configuration in terms of group relationships, rather than individual items.</p> <p>First of all, it is necessary to point out the relationship between humans and rhythm. The most intriguing aspect is when people are considering visual art; ‘the viewers’ eyes will follow the rhythm jumping from one to the next. If for example, the craftsman choses to set the rhythm by using a repeated colour, the viewer immediately registers the colour as beat and will physically follow the beat, automatically moving from one to the next. We all scan an image in the same way; it is how the brain responds to the visual rhythm. The rhythm in the crafts leads us up and down, rather than simply from side to side. The one central factor to keep in mind is that, whatever the type of rhythm we choose, this rhythm directs the viewer’s attention up, round and over our craft.</p>

### Secondary level: deconstruction

“When the work of art is looked at in a certain way, one becomes aware of the aspects that dawn in the aesthetic space of composition. These are proper parts of the work of art as aesthetic object, and blindness to these is the sort of aspect-blindness that disqualifies one both for aesthetic perception and the assessment of the merits of the work as an aesthetic object in that view of it.” (VC Aldrich 1966)

The drawings of a six-year-old boy in Antoine de Saint-Exupéry’s classic, *The Little Prince*<sup>33</sup>, demonstrate this clearly (Fig.3).

<sup>33</sup> *The Little Prince* (French: *Le petit prince*), published in 1943, is French aviator Antoine de Saint Exupéry’s most famous novella, which he wrote in the United States while renting The Bevin House in Asharoken, New York, on Long Island. The novella includes a number of drawings by Saint-Exupéry himself, which are reproduced in most versions.



Fig.3 A picture of a hat or a picture of a boa constrictor digesting an elephant. Illustrations from *The Little Prince* by Antoine de Saint-Exupéry, copyright © 1943 by Harcourt, Inc..

In referring to this drawing, John Naisbitt (Naisbitt, 2006) points out that when we visualise “how much our mind can limit what we see. Once we remove the constraints, we will see what is there: an elephant being digested by a boa constrictor...One sees clearly only with the heart. Anything essential is invisible to the eyes.”

Although essential points may be invisible to the eye, it is difficult, if not impossible, to get close to the artist’s intention without careful observation. ‘When the power to see does not accompany the power to know – when the power to see is blunted – art historians, critics, and collectors all fall into the same kind of confusion.’ (Yanagi, 1972:111)

At this level, we focus on the subdivisions of craft, on visual domains like -- Pattern of Colour; Dimensions; Symbolism; composition and Sacred Geometry; Figure and Ground and Storytelling (Dia 2).

Diagram 2. The Secondary level of ways of seeing: deconstruction--explore detailed information

No.	Comment
5 Pattern of colour	Craft practitioners, who work closely with colour, create colour balance and harmony in their own methods. Balance, symmetry, hierarchy, space, repetition and rhythm are all organising principles to be considered and used. Unquestionably, colour works in all of these principles. In craft practice, colour has been used as a visual linking device to build balanced and effective composition; by using different tones, tints and shades of colour, they can create balanced and effective compositional patterns.
6 Dimensions	The researcher believes that craft is three dimensional in terms of object and thinking process, which ‘was seen to impart a particular tacit spatial awareness only to be gained in playing about with things three dimensionally’ (Kettley, 2005:545). So it is necessary to identify and verify a method to analyse three dimensional visual works, rather than using criteria and parameters that are available for analysing canvas painting. This is the basis of a deep understanding and comprehension of crafts practitioners’ ‘vision’ and therefore, exposes the nature of craft practice.

7 Symbolism	<p>‘No visual pattern is only itself. It always represents something beyond its own individual existence – which is like saying that all shape is the form of some content’ (Arnheim, 1976)</p> <p>There are many symbolic objects in visual art. Some of these symbols, such as the sun, rainbows or reptiles, are immediately recognisable as a part of the content at a conscious level. Others are more mystical and have a deep meaning at the subconscious level. It is fair to say that some symbolic objects will have a personal meaning for particular viewers. These symbolic objects, although involve with more complex situations represented by them, are perceivable. The phenomenon occurs when a craftsman provides minimal clues, yet the viewer brings the gestalt, or ‘whole effect’ of unzip / decompression creating recognition and meaning in the pattern in a viewer’s own way.</p>
8 Composition, Sacred geometry and symbolism	<p>The underlying belief is that geometry and mathematical ratios derived from geometry also underlie music, cosmology and other observable features of the natural universe. This belief has been held since ancient times, through the Renaissance and has influenced the construction of temples and churches and the creation of religious arts and crafts.</p> <p>The symbolism of such as Celtic art, incorporated symbolic geometry. The proportions are balanced, the shapes rhythmic, their outlying elements forming part of an unseen whole. Not surprisingly, then, geometry lies at the heart of the fundamental blueprints of many formations, sometimes obviously, sometimes veiled, like a secret waiting to be uncovered only by the most persistent of minds.</p>
9 Figure and Ground	<p>The phenomenon varies somewhat, depending on what part of the pattern holds the observer’s attention. The part which remains in the predominant position and holds viewer’s attention first is the figure and the rest is the background (Arnheim, 1976). Conditions are, however, rarely so simple in craft practice. The basic figure – ground pattern is a special case, namely an organisation of only two levels. It seems more appropriate to speak of patterns distributed over a number of depth levels. If we consult the principles so far described, the image consists of two or more planes or shallow spaces extending parallel to the frontal plane and appearing at different distances from the observer. If we distinguish the distance by the vanishing point, it would be divided into foreground, medium shot (the place where the point is) and establishing shot (sometimes hard to distinguish from the ground). What do the depth relations look like in a piece of work? This depends mainly on two factors: the craftsman’s purpose following his / her balance principles and the viewer’s (gestalt) visual perception.</p>
10 Storytelling	<p>In craft practice, visual storytelling is a method of creating imagery, emotions and dialogue between a craftsman and a viewer. It would engage a viewer, evokes a specific emotional response, or provides a rich context to enhance reading the visual language.</p> <p>How do craft practitioners tell a story in their work? Narrative details enable a viewer to construct a story which illuminates for her/him the philosophy behind the work. It is the depth level of meaning she/he can achieve. Good storytelling experiences generally require certain fundamental elements, including ‘setting, characters, plot, invisibility, mood, movement’. When successfully employed, a viewer will experience and recall the events of the story in a personal way – it becomes a part of her/him (Lidwell 2003). Finally, there is something in the telling of the story which is more than the story told.</p>

### Tertiary level: the reconstruction of details

At the final level, visual analysis discloses the depth of feeling, the craftsman's attitude to life, and personal aesthetics and philosophy. This is the stage of 'enlightenment'.

In the Ten Ox-herding sequential representation of a spiritual itinerary (Fig.4), the process follows the Zen meditation. In the eighth picture, there is simply an empty circle. This is preceded by a picture (the seventh) of the Ox-herd in a posture of contemplation and succeeded by a picture (the ninth) of an affecting landscape.

The empty circle makes the subject matter of seventh picture ambiguous, at least initially, since there is in it a circle in the sky, this, might be read as the moon, but were one to see the picture in isolation, it could represent the impending enlightenment or satori, which is actualised in picture eight. One therefore has to determine whether picture eight, in addition to its obvious reference, refers, inter-textually to picture seven, if the overall interpretation is to be clear. Picture eight is a picture of Enlightenment, of a certain blankness. As blank as the eighth Ox-herding picture is, however, its powerful impact on the viewer is connected with the fact that it represents a change into a spiritual state of the highest importance.



Fig. 4 From left to right: The seventh, eighth and ninth picture of the ten Ox-herding pictures

Danto (1986) used the ten Ox-herding pictures to explain the relationship between language, art and culture, where, to him, it seems that 'without some understanding of the theory of enlightenment, of the urgency attached to its attainment, and the fact it is an episode in a life – as print Nine makes explicit – rather than a terminal culmination, one cannot feel the power of print eight, or even respond to it as powerful...one must...distinguish the blankness of paper from the blankness of the picture.'

In order to achieve enlightenment, all three levels must be traversed. What we are looking for at this stage is more like ways of knowing -- craft as a way of understanding nature. Finally, at the breakthrough, one discovers the immanency within the original process of craft making, finding a new clarity in nature.

In this research, four ways of seeing were identified at this tertiary level -- direction & navigation; dynamic craft: growth & movement; space & environment, force of nature. They are interrelated and interdependent in their relation to craft consideration (Dia.3).

Diagram 3: The Tertiary level of ways of seeing: the construction of details

No.	Comment
11 Direction / Navigation	<p>Craft practitioners design the characters and plots in their work. Viewers may have their own understanding of the work but they should not force themselves to try to understand the meaning from the visual work. As a viewer, it is important to lay back and let the work tell the story, by following the scenario in the work.</p> <p>Then, the question becomes what is the driving force of the scenario in the craftsman's visualised storytelling? From observation, there are a series of key factors in driving the scenario, including the design of colour, shape and form. The readability and orientation while navigating a piece of craft depends on conscious designing of all the elements into a integrity and the use of detail in characters from foreground to background for mapping information and structuring narrative architecture. The observation is three dimensional, as the craft is not static but dynamic. So, reading the narrative content in a piece of craft is not only sequentially, from left to right but also from top to bottom, and forwards and backwards. Finally, achieving a holistic view by navigation.</p>
12 Dynamic Craft: Growth and Movement	<p>Everything in the nature is growing or dying. It is unpredictable and irresistible. While scientists try to find an essential model to explain the general principle hiding in the various phenomena, crafts people are keen to represent the diversity in the process.</p> <p>Craft practitioners who design and make an entire piece of work, witness the growth of work, which reflects the growth of thinking and technique of the craftsman. There is no prearranged routine from the primary idea to the final work. To be sure, a dynamic craft records every partial aspect in the craftsman's thinking process, including the many times of 'redoing'. The progress in the language of craft reflects the development in the intelligence and philosophy of craftsmen. Therefore, we should analyse the growth in a craft by putting it back into the entire life of the craftsman, his / her society and considering it as a holistic way of seeing.</p>
13 Space and Environment	<p>Dewey said that understanding art is like understanding another person. Knowing the person's growing up environment helps to understand the person better. Craft requires knowledge of context / situation and culture, to recognise the deep meaning of Craft. Craft decorates the environmental space; unquestionably and by the same token, environment condition affects the observation of Craft.</p> <p>The way people see craft is subjective and constantly changing. In a visual art, visual language does not necessarily have to be fixed - factors such as time, environmental condition and previous watching experience may directly influence observation and analysis.</p> <p>The analysis of the space in craft practice is focused on not only the physical space but also the physiological space. It intended to explore how craftsman recreated the physiological space through the physical visual space, how craftsman organise the physical visual space, in order to achieve the balance between internal and external. A good craftsman has a great understanding of internal and external space. Only when both parts complement each other, will harmony be created in the process of viewing.</p>



“The observation of nature is part of an artist’s life, it enlarges his form and knowledge, keeps him fresh and from working only by formula, and feeds inspiration.” (Henry Moore)

In eastern craft culture, the masters are used to calling the final step in the craft making ‘breath of life’; they also believe that craft ‘without innate beauty is dead work’ (Yanagi, 1972:106). Here, the way of seeing is exploring how craft practitioners create ‘the breath of life’ in craft.

Many artists and craftsmen believes that ‘behind the appearance of things there is some kind of spiritual essence, a force or immanent being which is only partially revealed in actual living forms... It is the business of art (craft), therefore, to strip forms of the casual excrescences, to reveal the forms the spirit would evolve if its aims were disinterested.’ (Henry Moore, 1968)

Craftsmen have an instinctive comprehension of nature. Craft practice is a way of exploring nature. By the intensive study of numerous examples in nature, craftsmen discover an underlying principle to produce work in a unique visual language. Hence, craft practitioners study nature, accumulate findings from everyday life in nature, touch the truth of nature, meditate the force of nature, finally, gaining the ability to express the immanent being of nature in their work. Such craft ‘draws the essence of the nature seen with craftsman’s own heartbeat, life to life’ (Yanagi, 1972:114). It is not just a restricted form but a living being in the present, with the laws of nature, which is always revealing fresh possibilities.

As in the Zen meditation experiments, the effectiveness of seeing depends upon its being capable of being analysed in this way. Unless there is some understanding of a theory of ways of see, of the levels of meditation and the fact that it is a part of nature, and not isolated from it, then one cannot feel the intelligence of the craft creature, or even respond to it as an intelligent being. In traversing the three levels of seeing, we finally achieve enlightenment or mushin in the Zen state (no mind) and find the true ability to contact the craft creature directly and to have a intelligent dialogue with the craft practitioners.

## Conclusion

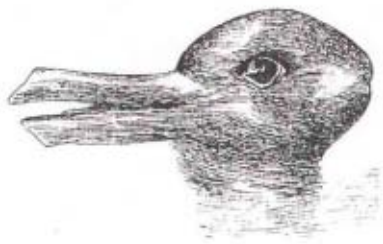


Fig. 5 The famous duck-rabbit ambiguous image

In conclusion, the famous duck-rabbit ambiguous image (Fig.5) is referred to as a metaphor. Is it a duck or a rabbit? It is either a duck or a rabbit. It is not hard to see both figures in the ambiguous image. The hard part is to explain ‘what happens when we switch from one interpretation to the other’. When we are watching the image, there is a subtle moment when the duck’s beak becomes the rabbit’s ear. This is the key point in the illusion of the transfer metamorphosis from duck to rabbit. This, again, confirmed the premise at the

beginning of the paper that what we see is contingent on how we see. The visual analysis model is intended to act as such a method in approaching craft knowledge. It is not used to tell the designers what they will see in the craft but how they should see the dynamic process of craft practice.

The visual analysis model will be further explored and evaluated in depth in future research, by examining how VAM has influenced the way we read the craft object and practice and how we capture the spiritual force that craft practitioners create in their visual work. From this foundation of 'seeing' and 'telling', I suggest that the individual designer can devise their own approach to 'knowing', in order to get close to the heart of craft knowledge.

## References

- Arnheim, R. (1974). *Art and visual perception: a psychology of the creative eye* (Expanded and revised ed. ed.). Berkeley: University of California Press.
- Black, J. S., Traquair, P. A. M., Dante Alighieri, S. W. D. C. G. A. t. t. D. C. M., & Dante Alighieri, S. W. D. C. G. A. t. t. D. C. P. I. (1890). *Dante Illustrations and Notes*. (The illustrations by Phoebe A. Traquair.) L.P: pp. xcv. 83. Privately printed: Edinburgh.
- Burkhauser, J., & Glasgow School of, A. (1988). *Glasgow girls: women in the Art School 1880-1920* [published on the occasion of the exhibition held at The Mackintosh Museum, Glasgow School of Art, 14 July - 31 August 1988]: Department of Historical and Critical Studies, Glasgow School of Art.
- Cumming, E. (1986). *Phoebe Anna Traquair HRSA (1852-1936) and her contribution to arts and crafts in Edinburgh*. University of Edinburgh.
- Cumming, E. (1993). *Phoebe Anna Traquair*. Edinburgh: Scottish National Portrait Gallery.
- Cumming, E. (2006). *Hand, heart and soul: the arts and crafts movement in Scotland*: Birlinn.
- Dante, A., Norton, C. E., & Traquair, P. A. M. (1902). *La Vita nuova ... Illustrated by Phoebe Anna Traquair*. (A photographic reproduction of an illuminated manuscript done on vellum for Sir Thomas Gibson Carmichael.) [With \201CA translation of the 'Vita Nuova' by Charles Eliot Norton,\201D in fact comprising only the verses from Charles E. Norton's translation of the Vita Nuova.]: 2 pt. William J. Hay: Edinburgh.
- Danto, A. C. (1986). *The philosophical disenfranchisement of art*. New York: Columbia University Press.
- Dewey, J. (1910). *How we think*. [S.I.]: Heath.
- Dewey, J. (1958). *Art as experience*. N.Y.: Capricorn Books.
- Holly, M. A. (1996). *Past looking: the historical imagination and the rhetoric of the image*. Ithaca; London: Cornell University Press.
- Lidwell, W., Holden, K., & Butler, J. (2003). *Universal principles of design*. Gloucester, Mass.: Rockport; [Hove: RotoVision, distributor].
- Moore, H., & Hedgecoe, J. (1968). *Henry Spencer Moore*. (Photographed and edited by John Hedgecoe. Words by Henry Moore.) [With portraits.]: pp. 524. Thomas Nelson: London; printed in the Netherlands.
- Naisbitt, J. (2006). *Mind set!: reset your thinking and see the future* (1st ed. ed.). New York: Collins.
- Peng, F. (2008). *The Craft of Visual analysis*. Paper presented at the Crafticulation & Education Conference, Helsinki University.
- Rose, G. (2001). *Visual methodologies: an introduction to the interpretation of visual materials*. London: Sage.
- Rossetti, D. G., & Traquair, P. A. M. (1904). *The House of Life ... Illustrated by Phoebe A. Traquair*: W. J. Hay: Edinburgh.
- Saint-Exu\0301pe, A. d. (1991). *The little prince: Mammoth*.
- Yanagi, S. e., & Leach, B. (1972). *The unknown craftsman. A Japanese insight into beauty ... Adapted by Bernard Leach, etc*: Tokyo: Kodansha International.

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## CRAFT AS THERAPY AND THERAPEUTIC ACTIVITY

### abstract

*The concept of craft therapy has thus far been undefined, and craft as therapeutic activity has not been analysed either. However, craft has been one of the first therapeutic occupations of occupational therapy. It has been used as an occupation-focused practice without theorizing and specifying its position in the contemporary practice.*

*In this article craft therapy and craft as therapeutic activity will be elaborated with the concepts of craft as therapy and craft in therapy, as well as by describing the areas of practice and levels of practice. This is carried out by analysing the concepts and their differences as well as by comparing them to art and music therapy.*

*Craft therapy can be used within the evolving relationship between a client and a therapist to support and encourage physical, mental, social and emotional well-being. Craft as therapeutic activity can be used through a self-treating process as well as in cooperation with other people or a therapist.*

**keywords:** *Craft, craft therapy, craft as therapeutic activity, therapeutic change, well-being*

### Introduction

Occupational therapy enables people to carry out activities which make their lives meaningful. It uses productive or creative activities in the treatment or rehabilitation of physically, cognitively, or emotionally disabled people (Kielhofner, 2004). Art and craft activities have traditionally been the main tools of practicing occupational therapy from the beginning of the profession (Dickerson & Kaplan, 1991, p. 11). Historically, the use of occupational therapy as an integral aspect of treatment has fluctuated in relation to the prevailing understanding about the causes of mental illness and other social and political factors (Paterson, 2005, pp. 3–4).

Originally occupational therapy was called work therapy and it meant economic help and keeping the patient busy. Craft was mostly concretized in a model of work therapy which also included elements of leisure time activities (Drake, 1999). Particularly those who dealt with disabled or mentally ill patients recognized the necessity of art and aesthetic impulses as a considerable focus area of therapy: aesthetically oriented art and handicrafts were introduced in occupational therapy (Harms, 1975, p. 241).

Throughout the history of occupational therapy, trends calling for a return to the therapeutic use of arts and crafts and for their abandonment have both reappeared. Craft has been used as a therapeutic tool or an occupation-focused practice without theorizing and specifying it clearly (e.g. Helmhold, 2003; Drake, 2005), and the literature discussing this field of domain has been concentrating mostly on practical knowledge which is needed when therapists use craft with patients in their therapy and activity programs (e.g. Johnson, Lobdell, Nesbitt & Clare, 1996; Drake, 1999; Tubbs & Drake, 2007). Recent discussions by occupational therapists have strongly suggested that although craft is relevant to occupational therapy, there are uncertainties about its position in the contemporary practice. Harris' (2008) findings among occupational

therapists suggest that while craft-making has therapeutic value and that reasoning about the therapeutic use of craft is similar to reasoning about other therapeutic activities, the personal experience of craft-making may still influence on the selection of craft as activity. The situation poses a challenge to craft science for defining the concept of craft therapy and craft as therapeutic activity to contribute the value of craft in therapy. There is a need to clarify the therapeutic nature of craft, the areas of practice and the levels of practice to fit the therapeutic activities and contexts together.

### The therapeutic nature of craft

Tubbs and Drake (2007) are describing the therapeutic nature of craft by sensory, psychological and social significance as something that enhances personal strengths and functioning. Schütz (2003) refers to the therapeutic process of craft with three dimensions. He illustrates the therapeutic nature of the materials and the artefacts, as well as the self-reflection and the social dimensions. The main basis for the therapeutic nature of craft is the opportunity of creating a safety zone which makes it possible to analyze events and situations in life, difficult emotions and experiences from a symbolic distance (Schütz, 2003, p. 59; Pöllänen, 2006, pp. 132-133). Regression that takes place in creative activity, art making and in the aesthetic response to it is compared with regression that takes place in psychoanalytic treatment. Regression can be said to be in the service of the ego (Knafo, 2002, p. 24.)

The therapeutic nature of craft can be further elaborated with the help of Bruscia's (1987; 1998a) and Malchiodi's (2005) classifications from music and art therapy. Accordingly, craft can be divided to *craft as therapy* and *craft in therapy*, two methods to be used in different phases of a therapy process. The difference between these two concepts becomes clearer, when we examine the meaning attached to them. Because craft can contribute as a means of self expression (Johnson & Wilson, 2005; Pöllänen, 2006) we can assume that it could be compared with the self expression of improvisational models used in music therapy (see Bruscia, 1987; 1998a), and be examined by applying the Bruscia's (1987) division of *absolute* and *referential* points of view.

Craft can be viewed as a catalyst for emotional experiences and cognitive processes – that is the absolute sense. In that case craft has the role of therapy (craft as therapy). On the other hand craft can be seen as unconscious self expression – that is the referential sense, and thus craft has the role of a therapy method (craft in therapy).

In the absolute sense, craft as therapy, the meaning of craft can be in craft itself, since the whole process of working by hand or the final artefact can be therapeutic. An individual generates new craft experiences through cognitive processes. Craft, making by hand, the interaction between the material, the tools and techniques, self-expression, the reflective process or the interaction with other people hold the central place (Schütz, 2003; Johnson & Wilson, 2005; Pöllänen, 2006). Thereby craft itself becomes therapeutic. The therapeutic change is based on the relationship between the individual and craft. Making by hand and the potential element of intervention may bring about changes in emotions, bodily and sensory experiences, patterns of thought, actions and behaviour. In these cases the therapy or the therapeutic process is described afterwards as craft and by the terminology of craft (cf. Bruscia, 1987; 1998b). In the non-referential process of self expression an individual acts either on her own or with another person. The role of the therapist is mainly to support and stimulate the emerging and the deepening of the relationship between craft and the individual. Therefore the role is more of a mentor of the craft process than that of a therapist (cf. Ahonen-Eerikäinen, 1999).

In a self-treating therapeutic process the role of the therapist may be replaced by previous learning experiences, ready-made models and instructions. Here craft is the initiator of the process of change as well as the process itself. The individual may use it consciously and in the way she/he wants (Warth, 2003; Pöllänen, 2006). This kind of method works best when there is a need for self-expression or cathartic processing or when there is a need to try out different methods and the limits of self expression. They are also suitable when the client has challenges in verbal or cognitive processing, as well as for those with a tendency to over-intellectualise their experiences. (Bruscia 1987.) In these cases concentrating on making by hand may create a symbolic distance or a certain kind of a metaphor (Malchiodi, 2005).

From the referential point of view, craft in therapy, craft has an external relevance. It has a symbolic quality and the context of craft has a high significance. Here, the artefacts and the associations and conceptions triggered by the craft process are of a therapeutic nature or they are the material of therapy. The issues processed with the aid of craft can be related to past or present life experiences, as well as to constructing the future (Pöllänen, 2006). In a referential process of self expression craft may be considered as something that operates as an instrument for expressing the inner world. The individual describes in her/his craft process – in the self-made artefact or a product made by someone else – some image, person, perception, situation or emotions from her/his own world of experience or cultural background (cf. Malchiodi, 2005).

The referential approach is most useful in situations where there's a need to process conscious emotions, events, thoughts and memories, or the aim is to unblock and deal with unconscious issues from various areas of life or the psyche (Bruscia, 1987). These cases can be referred to as psycho-dynamically oriented therapy. In craft the referential process is based on the fact that craft acts as the instrument of therapy. The focus is in the interaction between the therapist and the client. In craft this can also take the form of interaction with the material that is worked on. The language of craft and the craft process is thus intertwined with the expression of unconscious issues so that the therapy and the therapeutic process is described with terms not related to craft. The process can be described as some kind of metaphorical communication between a therapist and clients (cf. Bruscia, 1987; 1998b; Livingston, 2002). The concepts used are closely related to, for example, the self, identity and change.

In self-treating therapeutic craft conscious issues may be expressed through bodily actions, such as in banging of the looms or calming routine-like knitting. Thus the mind has time to go through and organize what has happened and plan for the future (Schütz, 2003; Pöllänen, 2006). This process can also occur by memorizing self-made artefacts, looking at photographs of them, or by a form of social interaction. Interaction and guiding skills are essential for the therapist, and the role is closer to the role of a therapist than that of a mentor (cf. Ahonen-Erikäinen, 1999).

In practice, however, the role of craft in the therapeutic process doesn't have to be dualistic in the sense described above. Craft can act both as a form of therapy and as a tool for it, while the focus may shift during the therapy process. In therapy, the needs of the individual dictate the role of craft in each phase. Therefore craft can be applied in various ways during the one and the same therapy process.

### **Areas of practice and levels of practice**

Applying craft in therapy and as therapeutic activity requires that the aims of the process are clearly analysed and defined. A suitable tool for this is, for example, Bruscia's (1998a) classification of the aims of music therapy. This division to areas of practice and levels of practice helps describing the possibilities of craft therapy and the differences of therapy and therapeutic activity.

The functions of the *didactic* area of practice are based on educational aims (cf. Bruscia, 1998a). In that case the objective can be enhancing of knowledge and skills that support individuals in their everyday life, fending for themselves, and social coping. These kinds of activities may be applied for developing knowledge and skills related to craft or making by hand that are, in an educational sense, objectives of a more general level. The didactic area of practice also includes applying craft for learning a subject other than craft or where craft is used as a subtext for therapy. Besides educational purposes, activities belonging to the didactic area of practice can be used in care and hospital environments and rehabilitation.

The *medical* area of practice, on the other hand, stresses activities that develop or sustain physical health (cf. Bruscia, 1998a). In that area, the primary object of activities is a biomedical condition or a disability. The biopsychosocial basis of human enables exploitation of psychosocial and ecological factors in support of medical rehabilitation treatments (Lukasczyk-Pöpl & Helmhold, 2003). The medical area of practice includes, inter alia, the opportunity to train the fine-motorics of craft and eye-hand-body coordination. The senso-motoric experiences related to working by hand help controlling one's own body and gaining a sense of control (Schütz, 2003; Pöllänen, 2006). Therefore, craft can co-exist alongside with physiotherapy and occupational therapies and support the medical area of practice in schools, and hospital, care and rehabilitation environments.

The area of *healing* is related to the opportunity of creating universal balance and harmony through craft (cf. Bruscia, 1998a). The bodily aspect can be used as a tool for well-being and self-understanding, because while treating the body, the treatment has a holistic implication on the individual. Similar therapeutic implications in the area of healing are discovered in examples where crafts products create extra energy by their colour of material, or where the kinaesthetic sensation or the mechanical, repeated action of doing crafts has created a calming moment (Helmhold, 2003; Pöllänen, 2006). Craft can, therefore, be a part of anyone's every day life through beautiful handmade products and their aesthetic character, in accomplishing things ourselves, or through the self-expression processes involved. Craft has a specific significance for mental coping in the areas of coping at work, crisis intervention, terminal treatment etc.

The aim of the *psychotherapeutic* area of practice is to support the individual in enhancing satisfaction in life and a sense of meaningfulness (cf. Bruscia, 1998a). This centrally involves matters of personal feelings, self-esteem, thinking, visualisation, human relationships, and spirituality as such or attached to educational and medical factors. Physical and bodily experiences are seldom discussed in context with mental health, even though we are talking about the mentally therapeutic effects of activities or the body's somato-genetic feedback system. Feelings of agony or pain can be pushed away and turned into bodily activity (Schütz, 2003; Johnson & Wilson, 2005; Pöllänen, 2006) or into symbolic imagery. Making things by hand can help analysing a disconnected state of mind and allot quiet time to intellectual work. Satisfaction from accomplishing something successfully strengthens the identity of an independent actor that creates a positive self-image (positive illusions, Taylor & Brown, 1994) and a feeling of life management. Thus the self can get new perspectives. Craft can be a coping strategy when reactions caused by a fast pace of life and threatening life situations (working across cultures, Gil, 2005; post-traumatic stress reactions, Malchiodi, 2005; self-hurting reactions, Corbett, 1993) can be directed to the conscious mind through craft or memorizing old times (geriatrics, Petersen, 2003; Pöllänen, 2006). It, therefore, appears that the psychotherapeutic area is present in all craft activities in all activity sectors; education, treatment, care, and rehabilitation as well as in craft as a time-passing activity.

The *recreational* area consists of functions that increase life quality and welfare by pleasure in life, recreational activities or by taking part in social and cultural activities (cf. Bruscia 1998a). These include recreational activities alone or in a group or communal participation and experiences. Through the concrete

activities within the recreational area situational, bodily and cognitive dimensions can be integrated. Individuals can share their experiences, thoughts, and feelings through self-strengthening discussion or take advantage of other people's experiences as mirror data (see Schütz, 2003).

Finally, applying craft in different contexts related to health and wellbeing could be considered as the *ecological* area of practice (cf. Bruscia 1998a). Core activities may include empowering intervention or an act of development in a family, work place, community, or in the society or culture on a wider scale, or where an individual needs a change in relation with a community. Craft exhibitions, museums, and liberal adult education can be considered as social and cultural interventions in order to enhance well-being.

These areas are implemented on a *helping, fortifying, intensive or primary level* (see Bruscia, 1998a). The scope and depth of activity as well as the significance of the intervention and the therapeutic change vary according to the level of practice. The helping level refers to using craft in its different forms as a therapeutic activity. On this level craft can be a hobby or a self-treating activity that it is not aiming at systematic therapy process. The purpose is to benefit from the therapeutic qualities of craft. On the fortifying level craft can support the treatment or rehabilitation plan as a whole. Thus craft provides practical or therapeutic support to another form of treatment. On the intensive level craft could have an independent position in the therapy process as a specific form of treatment. On this level craft could be part of rehabilitation. On the primary level of practice craft therapy would focus solely on the client's therapeutic needs. Here the process and the aims of therapy extend to the medical and ecological area of practice.

Craft as therapy can also be classified by applying concepts familiar from psychotherapy (cf. Ahonen-Eerikäinen, 1999). From the perspective of craft, in *communication*-focused therapy craft is a form and a tool for interaction. The relationship between the client and therapist becomes effortlessly safe and approving with the help of craft, so that the individual is empowered and feels able to affect the course of events in the surrounding environment. Here, craft is a tool for self expression and a form of interaction. In *neuropsychologically* orientated therapy craft can be seen as a multisensory experience stimulating and supporting the body's perception as well as triggering associative and memory skills. Lukasczyk-Pöpl and Helmhold (2003) are describing e.g. felting from a neurological and an orthopaedic point of view. In *learning theoretically* orientated therapy craft can be the vessel for change for example in adjusting behaviour (e.g. restless children and felting, Lukasczyk-Pöpl & Helmhold, 2003), but it can also be a cognitive, pedagogical tool, or it can be an action that aims for the understanding of self, own actions and the surrounding environment. In *psychodynamic* therapy craft may be the tool for processing emotional experiences, the internal and external worlds and for practicing self control (Lukasczyk-Pöpl & Helmhold, 2003; Pöllänen, 2006).

## Conclusions

In addition to the traditional roles in education and free time activities, craft could very well have an important role in enhancing psychological wellness in the future. This can be achieved by applying craft in preventive mental work and as a tool for intervention in nursing, rehabilitation and psychotherapy. Craft could be a rehabilitation method used in self-treatment groups, in employment projects for handicapped and people with mental disorders, in voluntary support groups, as well as in psycho-educational family therapy. As a culturally and contextually sensitive form of expression craft can be applied to many activities that aim for integration to society or processing post-traumatic experiences (see Malchiodi, 2005). Rehabilitation processes can exploit both occupational therapy and communal procedure, as well as the behaviouristically oriented model for social learning.



From the perspective of craft, we can conclude that holistic craft involving a design process and self-expression, and ordinary craft accomplished by copying a model seem to have their own roles in craft therapy activities (Pöllänen, 2006). The type of activity will be chosen in accordance with the needs of the client. Craft can be utilized as systematic counselling rehabilitation in which craft as a concrete activity empowers the individual (cf. Malchiodi, 2005). It is based on close relationship, on trust that builds up within the client, on the experience of understanding and interpreting the clients and their needs, and on the development of cooperation in activity. The counselling rehabilitation can involve either ordinary or holistic craft since the creative process and self-expression in holistic craft can protect the ego or provide experiences that integrate the ego, while ordinary craft can mean recreation enhancing the sense of time management in everyday life as well as through life.

When craft is applied as therapy or as therapeutic activity, the focus is in craft, in the activity itself and in the emotions, experiences and language connected to it (cf. Bruscia, 1987; 1998b). The handicap, illness, pain and sense of unworthiness or some other issue that is considered a difficulty, are all put aside. Craft is an active, holistic function where the design or making process, or e.g. the touching and looking at the artefact produces various psychophysical meanings. Making by hand, the different stages of the craft process, the bodily aspect and the materials and tools at hand can be experienced as defence, projection or refuge. The activity can also include social significations. It can be said that craft can appear as an area of life that individuals can fully control according to their own terms, so that it supports the sense of control in life. Thus craft offers a context for therapeutic change.

## References

- Ahonen-Eerikäinen, H. (1999). Different forms of music therapy and working styles of music therapists – a qualitative study. *Nordic Journal of Music Therapy*, 8(2), 156–167.
- Bruscia, K. (1987). *Improvitational Models of Music Therapy*. Illinois: C.C. Thomas.
- Bruscia, K. (1998a). *Defining Music Therapy*, 2nd ed., Gilsum NH: Barcelona Publ.
- Bruscia, K. (1998b). *The Dynamics of Music Psychotherapy*. Gilsum, NH: Barcelona Publ.
- Corbett, J. (1993). Healing the Mind through the body. *Mental Handicap*, 21(3), 81–86.
- Dickerson, A. & Kaplan, S.H. (1991). A comparison of craft use and academic preparation in craft modalities. *American Journal of Occupational Therapy*, 45(1), 11–17.
- Drake, M. (1999). *Crafts in therapy and rehabilitation*, 2nd ed., Thorofare, NJ: Slack Inc.
- Drake, M. (2005). Arts and Crafts as meaningful occupation. In S.E. Ryan & K. Sladyk (Eds.), *Ryan's Occupational Therapy Assistant: Principles, Practice Issues, and Techniques* (pp. 398-404). New Jersey, USA: Slack Inc.
- Gil, E. (2005). From Sensitivity to Competence in Working across Cultures. In E. Gil & A. Drewes (Eds.) *Cultural Issues in Play Therapy* (pp. 3–25). New York: Guilford Press.
- Harms, E. (1975). The development of art therapy. *Leonardo*, 8(3), 241–244.
- Harris, E. (2008). The meanings of craft to an occupational therapist. *Australian Occupational Therapy Journal*, 55(2), 133–142.
- Helmhold, H. (2003). Schmutzige Technik. Filz in Förderarbeit und Therapie. In H. Helmhold & B. de Boer (Eds.) *Kunst & Therapie. Schmutzige Technik Filzen in Förderarbeit und Therapie* (pp. 9–26), Zeitschrift zu Fragen der ästhetischen Erziehung 31, Köln: Claus Richter Verlag.
- Johnson, C., Lobdell, K., Nesbitt, J. & Clare, M. (1996). *Therapeutic crafts: A practical approach*. New Jersey, USA: Slack Inc.
- Johnson, J.R. & Wilson, L.E. (2005). "It Says You Really Care": Motivational Factors of Contemporary Female Handcrafters. *Clothing and Textiles Research Journal*, 23(2), 115–130.
- Kielhofner, K. (2004). *Conceptual foundations of occupational therapy*, 3rd ed., Philadelphia, PA: F.A. Davis.
- Knafo, D. (2002). Revisiting Ernst Kris's Concept of Regression in the Service of the Ego. *Psychoanalytic Psychology*, 19(1), 24–49.

- Livingston, M. S. (2002). Self psychology, dreams and group psychotherapy. Working in the playspace. In C. Neri, M. Pines & R. Friedman (Eds.), *Dreams in Group Psychotherapy* (pp. 177–190). London: Jessica Kingsley Publ.
- Lukasczyk-Pöpl, C. & Helmhold, H. (2003). Die Filztechnik in der Ergotherapie für die Psychiatrie, Geriatrie, Pädiatrie und funktionale Ergotherapie. In H. Helmhold & B. de Boer (Eds.), *Kunst & Therapie. Schmutzige Technik Filzen in Förderarbeit und Therapie* (27–34), *Zeitschrift zu Fragen der ästhetischen Erziehung* 31, Köln: Claus Richter Verlag.
- Malchiodi, C.A. (2005). The Impact of Culture on Art Therapy with Children. In E. Gil & A. Drewes (Eds.), *Cultural Issues in Play Therapy* (pp. 96–111). New York: Guilford Press.
- Paterson, C. F. (2005). A short history of occupational therapy in psychotherapy. In J. Creek (Ed.), *Occupational therapy and mental health*, 3rd ed., (pp. 3–14). New York: Churchill Livingstone.
- Petersen, A. (2003). Filzen als Therapie in der Arbeit mit alten, pflegebedürftigen Menschen mit und ohne Behinderung. In H. Helmhold & B. de Boer (Eds.), *Kunst & Therapie. Schmutzige Technik Filzen in Förderarbeit und Therapie* (pp. 71–74), *Zeitschrift zu Fragen der ästhetischen Erziehung* 31, Köln: Claus Richter Verlag.
- Pöllänen, S. (2006). Crafts as a way to functional mental health. In A-L. Rauma, S. Pöllänen & P. Seitamaa-Hakkarainen (Eds.), *Human Perspectives on Sustainable Future* (pp. 128–134). Joensuu yliopisto, Kasvatustieteiden tiedekunnan tutkimuksia 99.
- Schütz, N. (2003). Selbst-, ästhetische und soziale Wahrnehmung im (kunst- / textile) therapeutischen Prozess. Filzen im Unterricht. In H. Helmhold & B. de Boer (Eds.), *Kunst & Therapie. Schmutzige Technik Filzen in Förderarbeit und Therapie* (pp. 87–85), *Zeitschrift zu Fragen der ästhetischen Erziehung* 31, 59–66. Köln: Claus Richter Verlag.
- Taylor, S.E. & Brown, J.D. (1994). Positive Illusions and Well-Being Revisited. Separating fact from fiction. *Psychological Bulletin*, 116(1), 21–27.
- Tubbs, C. & Drake, M. (2007). *Crafts and Creative Media in Therapy*. New Jersey, USA: Slack Inc.
- Warth, M. (2003). Therapie ohne Therapeut. Filztechnische und Psychische Prozesse in analoger Lesung. In H. Helmhold & B. de Boer (Eds.), *Kunst & Therapie. Schmutzige Technik Filzen in Förderarbeit und Therapie* (pp. 35–44), *Zeitschrift zu Fragen der ästhetischen Erziehung* 31, 59–66. Köln: Claus Richter Verlag.

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## SEN AND THE ART OF BASKET WEAVING

### abstract

*It has been observed that craft development initiatives make an unclear contribution towards assisting local craft producers to respond to the challenges of making products for globalised markets. Noting that craft covers a wide range of practices, a category of decorative artifacts has been identified as a major trading product segment and a focus area for handicraft development initiatives. There are concerns that Non-Western craft production in this labour intensive and only marginally profitable category prevents the artisans from developing indigenous design skills and thus higher value added products. Furthermore it has been observed that development initiatives often fail to address the wider issues linked to product marketing and distribution. This paper examines the current constraints to successful participation in global markets; through applying a capability framework, the study concludes that craft development initiatives could enhance their contribution through improved product innovation and wider capability development.*

**keywords:** *craft, design, craft development, capabilities, developing countries*

### Introduction

Handicraft industries are major employers in developing economies, covering a wide range of practice, and bringing livelihood to a wide, formal and non-formal economy through micro-enterprises and the SME-sector. For instance, in India craft employs the most people after agriculture, with 30 million people working in the sector. Craft exports are rising - the export target for 2006-07 was pegged at \$3.73 billion (16,500 Rupees (Srivats, 2006).

The individual artisans, however, appear to be struggling. Many of them live in abject poverty and work under distressing conditions, particularly in South East Asia, which has become a global factory of craft, where ornamental craft items are mass-produced in huge quantities to satisfy the Western “insatiable appetite for the visibly hand made” (Lucie-Smith, 1981, 276). Traditional craft making is often labour intensive, physically draining and with low productivity and added value resulting in low-income levels for the producers. As one Namibian basket-weaver has commented, the “job is big but money small” (Suich & Murphy, 2002). Though meagre, from the Western point of view, the income is still often considered as better than nothing in situations where other options for cash generation are limited (Suich & Murphy, 2002).

In order to improve on the capability of the handicraft industry to respond to the challenges of the globalization, a number of handicraft development organizations have been established to provide assistance for the marginalized craft producers through dedicated initiatives. These handicraft development initiatives often aim to support the development of the technical capability of the local handicraft producers, often with concurrent poverty alleviation aims.

It has been observed, however, that the present handicraft development initiatives are possibly not contributing as much as they potentially could towards enabling local handicraft producers to directly access the marketplace, and to compete in the global trade on equal terms. In the first place, the products are characterized by low technology and lack of product innovation, preventing the developing country artisans from fully exploiting their potential to design and produce high value added products. Secondly, the handicraft development initiatives often focus on the development of individual capabilities without addressing wider constraints and barriers, such as marketing.

This paper examines the opportunities that exist to create more balanced development initiatives that address also wider concerns to bring out the full potential of the individuals in the handicraft industry for the benefit of all. This paper is based on a partly longitudinal, three multiple case set study of craft development initiatives in Africa, India and Oceania, using mixed methods that include participatory observation and action research.

### **Craft and globalization**

Craft has been manufactured in developing countries for thousands of years, during which the artisans have mostly coped well, requiring no external assistance. Providing the local communities with craft items for ceremonial or functional use can be done by relying on local strategies that have developed through centuries by the people themselves. The need for assistance has risen along with globalization. The change that the Non-Western artisans are confronted with reflects the general change from communal society to capitalist economy, from use values to exchange values. Products are no longer made for personal consumption but for exchange (Kiyenze, 1985). Also, according to Kiyenze, coercion, cash cropping, taxation, imports and the money economy have been the major mechanisms that have disturbed the traditional social organizations of agricultural and craft production, sometimes forcing craftsmen into wage-labour or cash-crop production (Kiyenze, 1985).

Globalisation brings both threats and promises to marginalized producers. As pointed out by Practical Action (<http://practicalaction.org>), an organization dedicated to lifting the poor from poverty by appropriate technological solutions, global markets have the potential to bring good quality, affordable and mass-produced tools and technology to the reach of artisans. This potential is not always realized, however, as imported technologies may not be affordable to the most vulnerable groups, the women and the poor. The cost of adopting and maintaining new technologies may be prohibitive. It may also lead to a situation which undermines the local ability to produce goods and tools for the local market, the worst scenario being that local goods are no longer being made, while imported goods are not affordable (<http://practicalaction.org/?id=manufacturing>).

While the economic impact of handicraft industries cannot be denied on macro-level, the income level on personal level tends to be low, which is seen to act as an inhibitor to personal and professional development and improvement of living conditions, and might even lead to the extinction of traditional skills. This is seemingly underway in many parts of the developing world. These concerns resonate with the general fear of losing traditions, common also in the Western world today (Philips & Steiner, 1999).

### **Problematic demand**

While there is claimed to be a growing global demand for exotic and oriental artefacts, dwindling local markets due to cheap imports, compounded by the difficulties of direct access to the (also international)

marketplace, and the inability to compete in the global trade on equal terms are seen to be marginalizing many handicraft producers.

The growing global demand for non-essential, “exotic” artefacts, together with the asymmetry of trading arrangements, are seen also to have effectively directed the craft production into an area of low technology and a lack of product innovation, preventing the developing country artisans from fully exploiting their potential to design and produce high value added products (Southwell 1997).

There is a need for adjustment to modern markets, acknowledged by many organisations. According to UNCTAD guidebook for third world artisans, the life or death question for the artisans in developing economies is whether they can adapt their products to meet the requirements of global markets or not, as the purchasing power of local markets is limited and likely to stay so (Noy 1994, International Trade Centre, 1991). On the other hand, in some developing societies with burgeoning middle-class, such as South Africa, there are indications of growing local market, fuelled by increasing levels of national pride and steady annual economic growth (DTI, 2005).

The handicraft development initiatives often aim to support the development of the technical capability of the local handicraft producers, often with concurrent poverty alleviation aims. While their ultimate aim is often poverty alleviation, though they also have other aims, which they often emphasize more, such as enhancing cultural identities, saving traditions, or protecting local lifestyles. However, it is not clear what the contribution of the handicraft development initiatives have been to date for the local producers, in terms of enabling a direct access to the marketplace, and through enhancing further the ability to compete in the global trade on equal terms.

### Issues with taxonomy

When people talk about *craft*, they may mean objects, or a certain class of objects, a certain form of (manual) labour or an institution with ideological connotations. Particularly in the Western world, craft is considered as valuable in itself, a part of its economic dimensions. It is valued as an exciting, beautiful and culturally valuable practice. Making things with hands has been shown to be empowering – even for the poor and marginalized.

It was particularly the last dimension that drew my attention. I became interested in the Western craft ethos. During my years in developing countries I had come to realize that the Western notion of craft differed greatly from the Non-Western notion. The Westerners tend to see craft - which is essentially a physical way to change the environment - as something worthy in its own right, while in Non-Western countries such connotations do not exist. As Graburn has said, “arts” carry an aura of worth that is not attached to most other means of earning a livelihood (Graburn, 1976).

The attempts to define any common thread of world craft have failed (Alfoldy, 2006). In the presentations of global craft the Non-Western artisans often stay in the margins, as curiosities and so-called *colourful natives* but not as equal partners with their Western colleagues. There simply appears to be too big a gap between Western and Non-Western artisans. This gap is particularly apparent in the way Non-Western material production is perceived by the westerners.

Behind the diverse and controversial global handicraft industry, the concept of “craft” escapes simplistic definitions. For instance, Paul Greenhalgh (1997) approaches the word craft, which he says has been forming for over two and half centuries, through three distinct threads or elements, which have become intertwined relatively recently. He calls them *decorative art*, the *vernacular* and the *politics of work*. While the first of these is a feature of all civilisations, the others were formed during the nineteenth century. Arts

and Crafts movement brought all these elements together in the late nineteenth century, to form the concept of *craft*, known today (ibid).

Viktor Papanek (2002) has written about Vernacular fallacies, describing our schizophrenic approach to the art of the “other”. James Clifford talks about “pure products going crazy” (Clifford, 1988). On one hand, “indigenous art” is considered as appealing, in a nostalgic way, as an antidote to the pressures of modern life. On the other hand, it is seen as a relic, as anti-modern, somewhat regressive and conservative“ (Papanek, 2002).

In this context, an emphasis in the handicraft development initiatives has been observed towards developing a particular category of products which, using Graburn’s (1976) taxonomy of products emerging in the contact zones of Western and Non-Western peoples, includes the decorative artefacts that are sometimes referred to as non-essential items and often labelled as ethnic, due to their “exotic” appearance. This group of products is by no means homogenous but contains of a wide variety of craft products, with varied aesthetical and functional qualities, often with vernacular aesthetics, and a pre-industrial production mode. The products are labour intensive to produce, and their marginal profitability is limited. This is also the focus category of this study.

Furthermore, the decorative artefacts are often based on rather stereotypical representations of “native art” and may have a limiting impact on development of indigenous design skills. Still, many initiatives do not appear to be addressing the wider concerns related to marketing knowledge and best practice, and do not concern themselves with the issues related to product distribution.

## **Craft and development**

Craft has many roles in development endeavours; the following categories of craft development were identified:

1. Craft for healing
2. Craft for charity
3. Craft for business

While the first two are relatively clear with their aims and objectives, it is the third category that appears to be the most problematic, as craft making becomes when it is taken into the context of commercialization. While there is a growing number of handbooks giving tips to artisans in taking their practice into more profitable direction, there is little theorizing on the topic.

Marileea Vuori (1998) addresses the process of commercialization of craft from the point of view of economics. For Vuori, the essential question is the function of the practice. She argues that the Western studio craft is all too often considered within the context of art. Vuori refers to Anna-Maija Ihatsu’s (1998) model for classifying craft objects. Objects belonging to the class of *traditional craft* or vernacular - as opposed to the objects belonging to the class of *art-craft* that have been made for artistic (self expression) purposes - have generally been made for exchange or commerce. Following Peter Dormer, a category of *high design* has been added, referring to items that float between industrial design and art (Dormer, 1990). The best example of these would be the products of the Memphis group in the 80’s, playful and exclusive design statements, with little practical use. Traditional craft and industrial design are essentially commercial activities, but art craft and high design are essentially artistic.

### Oxfam catalogue syndrome

There appears to exist an emphasis in the handicraft development initiatives towards developing a particular category of products referred to as non-essential items and often labelled as ethnic, due to their exotic appearance. This group of products includes a wide variety of items we see in charity shops and supermarkets, in the Internet and in curio shops around the world. These decorative artefacts, the production of which the various organizations seem to be fond of supporting, appear to be based on rather stereotypical representations of native art.

Mirjam Southwell talks about *Oxfam Catalogue Syndrome* (Southwell, 1997), arguing that the various development organizations have “mummified the material production of the developing countries and deliberately keep it on the craft level, by convincing that this is the way development and modernity are achieved. She writes:

*“Industrialized nations have not become modern through the mass production of ethnic knick-knacks but through the continued development of technology and products that use these technologies”* (Southwell, 1997).

According to Southwell, the promotion of ethnic artefacts has resulted in the tacit knowledge being lost through the sense of inferiority that people generally suffer in the South. North perceives design in the south being dominated by tradition and ethnicity. Following Southwell, it could be argued that the growing global demand for non-essential, exotic artefacts have directed the handicraft production in developing countries into an area of low technology and a lack of product innovation. This prevents the developing country artisans from fully exploiting their potential

### Methodology

The research is based on a case study approach, which is used to explain existing practice and describe how contributions are made and can be improved upon. Three sets of cases, first-hand cases from field work and second-hand cases of existing and past development projects, have been used to triangulate the findings of the research.

The findings were analyzed in a framework developed from Amartya Sen’s Capability Approach (CA), an alternative approach to economic and social development, which is seen to be particularly useful in the analysis of product and development strategies in the craft development context. In the CA, he stresses the role of freedom as both the primary end and the principal means of development, seen as a process of expanding freedoms that underpin and enable development itself. The CA looks beyond the material condition and utilities into the substantive freedoms (capabilities) of individuals to choose a life one has reason to value. It is precisely the thinking on capabilities that is relevant to the this study; they form a framework of thought that has been used to create a construct for the analysis of the initiatives. While Sen himself does not present a list of capabilities, Nussbaun (2000), building on Marx and Aristotle, has suggested the following record of the central capabilities that are elementary for human well-being and needed for the operationalization of the Capability Approach:

- Life
- Bodily health
- Bodily integrity
- Senses, Imagination and Thought



- Emotions
- Practical reason
- Affiliation
- Other species
- Play
- Control over one's environment

Built on the above Nussbaum's list, composite capabilities that craft development initiatives should address was created, to form a construct in which the organizations policies and the promoted product ranges were analysed. Data was collected from major craft development organizations websites, such as (Aid to Artisans, Oxfam and Trade craft) and three "archetypical" craft projects, that form a continuum of what appears generally to be considered as desired and undesired practice. Of these a project called the Golden Eye, realized in mid-80's in India, with the aim of uniting high-level European design expertise with indigenous Indian craft skills marks the least desired policy, considered as a highly patronizing case of imposing Western modes to Indian reality. Indian based craft society Dastkar, based on appreciation of local traditional skills and minimal external interference, was considered the most appropriate and sustainable mode of development. The third case, Zimbabwean Weya-community, can be positioned in the middle of the continuum, as it seeks the "African" look by modifying representations of indigenous inter-African traditions to develop commercially successful products. The initial research design was built around the participatory observations undertaken within three case project s in Africa and Oceania.

The construct is based on the analysis based of elements that have been factored into three key elements:

- The attributes of products that would be expected to meet the demand of global markets on favourable terms.
- The capabilities that local producers need to design appropriate products.
- The constraints that limit capabilities

The first category deals with attributes that increase the market appeal of products, which I call desirability. The second category is based on Nussbaum's list of capabilities: Senses, Imagination and Thought; Practical reason; Affiliation; and Control over one's environment. The third is based on the constraints I have identified: asymmetric trade arrangement; product category lock-ins; and production and distribution issues.

### **Key findings**

Two main issues have been identified in handicraft development. In the first place, a skewed product development orientation has been observed, which effectively propagates the current situation of marginalization through low technology and lack of product innovation, preventing the developing country artisans from fully exploiting their potential to design and produce high value added products (that would lead to improved well-being of the producer community).

There is also the added complication that the complexities involved in marketing (essentially through lacking market knowledge) may also have the effect of unintentionally directing the product development towards the non-essential items. As an example, product development skills may be developed without considering marketing issues.

On another level, the handicraft development initiatives often appear to focus on the development of individual capabilities without addressing wider constraints and barriers.

## Discussion

My own initial question, at the start of the research, was to understand whether craft making in the form it exists today in the developing world creates blocks and product lock-ins, rather than real opportunities for the makers. Does it actually promote the Oxfam Catalogue Syndrome, identified by Southwell? One could ask (following Sen) whether it raises the floor but not the ceiling - the poor hit their heads not so much to glass but grass ceiling!

As one of the outcomes of the study, the Oxfam Catalogue Syndrome seems relatively easy to verify: the websites promote a rather stagnant vision of "indigenous crafts" that is valuable in itself, never mind its profitability. The Western notion of craft appears to be stuck with the Morrisian romantic vision of craft – a topic that would have required a presentation in itself. Another aspect is design discourse – whether design is stuck with Papanekian and Schumacherian notions of low-tech design solutions to the poor while rest of the world enjoys the fruits of technological development. The indigenous peoples' own notion of craft maybe much less enthusiastic: it is physical labour and as such not necessarily highly valued.

Both local producers and the organisations involved in craft development would benefit from an improved practice in setting up and implementing initiatives. To this end, three key issues are raised in this section that would add value to future endeavours. In the first place, it has been observed that the present products do not stand out, and that the contribution of the craft development initiatives is somewhat limited by the fact that support in product development and marketing is in many cases provided within the existing skills range of the local producers. Craft making draws increasing numbers of unskilled labour to the industry as the global trade of ornamental items is rising; the problem is that the global market requires high craftsmanship and the ability to provide steady quality and supplies. Secondly, the craft development initiatives do not encourage radical product development, or the use of new technology. While assistance is provided it tends to be framed by what the local producers are thought to be able or apt to do. Thirdly, there is a wide knowledge gap between markets and the producers. The organisations hook the producers to global trade but due to the depth, length and long age of the gap, these attempts are doomed to achieve only very moderate success.

To address these issues, several suggestions emerge from the study. Wider and more thorough assessment is needed to identify the hidden potentials in communities. There is no evidence that the Zulu people are naturally apt for beadwork, though such art-form has been performed by Zulus, anymore than Finns are naturally apt for making birch bark shoes though bark weaving is of ancient Finnish origin. The assumptions made on traditions, skill levels, and markets should be holistically reviewed and questioned. The objective would be to achieve a map of opportunities that could be achievable, almost akin to a set of capabilities that can be realized in the Senian terminology. The key constraints need to be identified in this context.

There is also a need to review carefully the potential of each culture to see and assimilate new knowledge, incorporate it and reconfigure it to suit. The new knowledge introduction could be done in three ways: having artisans enter into direct contact with the markets (say through trade fairs), have designers or planners support the producers on a long term basis (but not necessarily constant), and develop ICT based marketing and communication tools. It is important to recognize that these three systems should happen concurrently. It is also important to chart the ways in which knowledge introduction can be achieved, as

acceptance or rejection may depend on factors, which are not obvious to the outsiders. The objective would be to bridge the knowledge gap that exists between markets and producers.

New product concepts should be considered, ones that had a potential in external markets and that would benefit the local communities as well. While the incremental product innovation is the current prevailing strategy, radical innovations could be brought up on the side to address needs which new and do not exist yet. These could also be immaterial services or technical solutions to local problems that could have global interest. The objective would be to emerge from the lock-ins in the category of non-essential items.

Finally, the global commercial system needs to change, and not only the action of local producers. The advocacy role of the craft development organisations can be a significant one in making the commercial structures more adequate and level for all players. Developing countries true potential should be delivered and their profiles clarified. The vitality and inventiveness of the local lifestyles should be made known for the Western world through the many immaterial forms these cultures manifest themselves, such as healing, music, poetry, story telling, religion, and ceremonies.

## **Conclusions**

In this paper it has been argued that the present handicraft development initiatives are not contributing as much as they potentially could towards enabling local handicraft producers to directly access the marketplace, and to compete in the global trade on equal terms.

In the first place, this is seen to be caused by a skewed product development orientation, which effectively propagates the current situation of marginalization through low technology and lack of product innovation, preventing the developing country artisans from fully exploiting their potential to design and produce high value added products (that would lead to improved well-being of the producer community). Craft development initiatives have directed the craft production in developing countries into an area of low technology and a lack of product innovation. Craft development initiatives have therefore become part of the problem they are trying to solve.

Secondly, the handicraft development initiatives often focus on the development of individual capabilities without addressing wider constraints and barriers. Due to this, in the case projects, skills development is only partly effective, nor can it become more effective.

As an example, product development skills may be developed without considering marketing issues. The complexities involved in marketing (through lacking market knowledge) may also have the effect of unintentionally directing the product development towards the non-essential items (perhaps due to the familiarity aspect). The paper suggests that future handicraft development initiatives could benefit from Amartya Sen's capability approach, as it provides a framework for unifying the development of individual capability with the reduction of wider constraints, leading to more balanced development initiatives that address also wider concerns to bring out the full potential of the individuals in the handicraft industry for the benefit of all.

Taken the above together, this implies that, under current practices, craft development initiatives cannot generally fully contribute to the development of the response capability of the local craft producers. Current practice can be enhanced, however, but that requires serious consideration to the product strategies, and a re-think of the premises under which initiatives are undertaken.

More critical assessment of the well-meaning initiatives is needed to open new perspectives to craft development. While "traditional" craft making has many good and worthwhile characteristics, my research

finds that it may not be the best or even sufficiently appropriate tool in capability enhancement that would lead to poverty alleviation and enhanced human well-being

## References

- Alfoldy, S. (2006) "Global Peace Through Craft: The Formation of the World Crafts Council". <http://www.craftculture.org/archive/alfoldy1.htm>
- Clifford, J. (1988) *The Predicament of Culture*. Cambridge, Massachusetts: Harvard University Press.
- Clifford, J. (1998) "On Collecting Art and Culture" in Mirzoeff, N. (1998) *Visual Culture Reader*. New York: Routledge.
- Dormer, P. (ed.) (1997) *The Culture of Craft*. Manchester and New York: Manchester University Press.
- DTI (2005) *Sector Development Strategy Craft*. May 2005. Department of Trade and Industry (DTI), South Africa. [http://www.capecraftanddesign.org.za/research\\_forlder/html/dti/dti3.htm](http://www.capecraftanddesign.org.za/research_forlder/html/dti/dti3.htm)
- Graburn, N. (ed.) (1979) *Ethnic and Tourist Arts. Cultural Expressions from the Fourth World*. Berkeley and Los Angeles: University of California Press.
- Greenhalgh, P. (1997) *The History of Craft*, in Dormer, P. (ed.) *The Culture of Craft*. Manchester and New York: Manchester University Press.
- Ihatsu, A. (1996) *Craft, Art or Craft-design? In pursuit of the British equivalent for the Finnish concept "käsiyö"*. Joensuu: Joensuun Yliopistopaino.
- Kiyenze, B. (1985) *The Transformation of Tanzanian Handicrafts into Co-operatives and Rural Smallscale Industrialization*. Development and Culture Research 6:1985. Mimeographs of the Finnish Anthropological society.
- Lucie-Smith, E. (1981) *The Story of Craft. Craftsmans Role in Society*. Oxford: Phaidon Press Limited.
- Lucie-Smith, E. (1986): "Craft today. Historical roots and contemporary perspectives." In Smith & Lucie-Smith (eds.) *American Craft today. Poetry of the Physical*. New York: Weidenfeld and Nicolson.
- Nussbaum, M. (1999) *Sex and Social Justice*. Oxford: Oxford University Press.
- Nussbaum, M. (2000) "In Defense of Universal Values", in *Women and Human Development: The Capabilities Approach*. John Robert Seeley lectures, Cambridge, UK: Cambridge University Press.
- Papanek, V. (1995) *The Green Imperative. Ecology and Ethics in Design and Architecture*. London: Thames and Hudson.
- Papanek, V. (1997) *Design for the Real World. Human Ecology and Social Change*. London: Thames and Hudson.
- Sen, A. (1999): *Development as Freedom*. Oxford: Oxford University Press
- Southwell, M. (1997) "Technology Transformed". A Conference paper in the Third International Conference on Design Education in Developing Countries, Pretoria, South Africa, 1997.
- Srivats, K. (2006) "Handicraft exports up 13.71% in April-Nov". *The Hindu Business Line*,. Saturday, Dec 30, 2006. <http://www.thehindubusinessline.com/2006/12/30/stories/2006123004790300.htm>
- Vuori, M. (1998) *Commercialising of Design Craft*. Proceedings of the University of Vaasa. Discussion papers 235.

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## VITALISM, ART, AND CRAFT

### abstract

*A vital principle that physics and chemistry are not sufficient to explain the processes of life has been part of scientific discussion since Antiquity. The present study focuses on the idea of vitalism as applied to creative processes in the production of artifacts. The study asks how the difference between art and craft emerges in vitalist thinking, what have been the pivotal ideas in the development, and how these ideas accord with the nature of a creative process as seen by professional artists and craftsmen. The central question is the validity of the vitalist argument for the difference between art and craft. The study first reviews the development of vitalist ideas about art and craft from Greek Antiquity to the 19th century, and scrutinizes the ideas expressed in the 20th century. The critical inquiry centers on painting, sculpture, and art craft: all of them include handwork as a crucial part of the creative process. The period from the 1920s to 1950s offers most of the material. The study discusses the results of the inquiry in the light of the present cultural concepts of imitation and creativity. The findings demystify the creative process and challenge the validity of the vitalist argument. The study proposes that a fruitful viewpoint for articulating craft would be to see art and art craft as part of the same continuum of self-expression.*

**keywords:** *vitalism, creative process, art, craft*

### Imitation and creativity

In a review of Chloe Piene's charcoal drawings in 2001, a Finnish art critic paid special attention to the birth process of the works. For him, it appeared magically easy:

“[–] with a lump in the throat, one observes that there is no searching, no cautious rubbing. Everything is right there, like thanks to a magic force or a vital force.” (Rautio 2001)

Some kind of mystical life force is often expressed in various writings about creative activities. We tend to pass such notions mostly as something vaguely familiar, without thinking of their origin or meaning. Maybe they are just unnecessary remnants in the artspeak of the age with “selfish” genes and “memes”. One cannot find them in the discourse of creative processes.

One may regard a culture as being built of “memes” or units of imitation that convey instructions of action from one generation to another. (For the theory of memes, see Blackmore 1999) “Born *Originals*, how comes it to pass that we die *Copies*?” was the question presented by the poet Edward Young in the mid 18<sup>th</sup> century. (Young, 1759, § 164) Under the pressure of imitation, what then is creativity?

Creativity can be understood as a change induced in the imitation instructions that migrate through learning. It is not necessarily a question of purely individual performance. Csikszentmihalyi (1999), for example, emphasizes the interactive nature of the process: an individual, his cultural domain, and his social field of activity interact dynamically. (For the interactive nature of the process, see Csikszentmihalyi, 1999, pp. 314–316)

The systems model by Csikszentmihalyi (Fig. 1) emphasizes the social nature of creativity: an individual's field of activity stimulates the production of novelties and screens them. Yet, some kind of vital force is necessary for the individual to perform. When discussing the personalities of creative persons, Csikszentmihalyi notes that psychoanalytic theory sees "the ability to regress into the unconscious while still maintaining conscious ego controls as one of the hallmarks of creativity." (Csikszentmihalyi, 1999, pp. 321, 331)

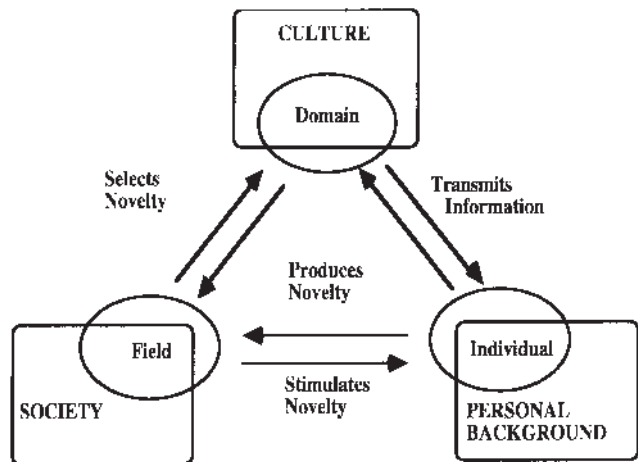


Fig. 1 The systems view of creativity according to Csikszentmihalyi (1999, p. 315)

### Force that creates life

Originally, a mystic life force was part of thinking about the universe, its birth and structure. The philosopher Anaxagoras (c.500–428 B.C.) used such a concept as the driving force in his cosmology. Anaxagoras held that any matter contains an infinite number of elements. Everything has a portion of each element, except for the element *nous* or "mind." "Mind" is infinite, independent, and does not combine with anything. It is present in living things but not in dead matter. Nevertheless, it is the source of all motion. (Russel, 1979, p. 80)

Some hundred years later, Aristotle (384–322 B.C.) criticized the world of Anaxagoras as being born by force:

"Anaxagoras avails himself of Mind as an artificial device for producing order, and drags it in whenever he is at a loss to explain some necessary result; but otherwise he makes anything rather than Mind the cause of what happens." (Aristotle, 1989, § 985a)

Anaxagoras was a contemporary of the atomist Leucippus. A student of Leucippus was Democritus (c.460–c.370 B.C.). In the conception of the world by Democritus, movement and indivisible elements, atoms, are forever. Collisions of atoms lead to the creation of worlds. There have always been worlds, and they come and go. There is no particular force – like the "mind" of Anaxagoras – that would cause movement and create life. (Russel, 1979, pp. 83–85, 88–89)

The eternal nature of movement in the atomist thinking did not suit Aristotle any better than the "artificial device" of Anaxagoras:

"Leucippus [--] and his disciple Democritus hold that the elements are the Full and the Void [--] they hold that what is differs only in contour, inter-contact, and *inclination*. (Of these contour means shape, inter-contact arrangement, and inclination position.) [--] As for motion, whence and how it arises in things, they casually ignored this point, very much as the other thinkers did." (Aristotle, 1989, § 985b)

Neither had the mechanistic cosmology of the atomists satisfied Aristotle's teacher Plato (427–347 B.C.) or Plato's own teacher Socrates (c. 470–399 B.C.), a contemporary of Democritus. (Russel, 1979, pp. 82–83, 84) Plato and Aristotle ended up with teleological alternatives. With both Plato and Aristotle, God creates the "forms" that build up the world. The "forms" are eternal and unchanging. The world can only be explained through God's intention. Such a teleological conception of the world did not allow for research, and it retarded the development of the natural sciences until the Renaissance. (Russel, 1979, pp. 84–85, 178–179)

In the same way as Anaxagoras, Plato and Aristotle included a vital force in their conceptions of the world. With Plato, such a force is the eternal and immortal "soul":

"Thus that which moves itself must be the beginning of motion. And this can be neither destroyed nor generated, otherwise all the heavens and all generation must fall in ruin and stop and never again have any source of motion or origin. But since that which is moved by itself has been seen to be immortal, one who says that this self-motion is the essence and the very idea of the soul, will not be disgraced. For every body which derives motion from without is soulless, but that which has its motion within itself has a soul, since that is the nature of the soul; but if this is true, that that which moves itself is nothing else than the soul, – then the soul would necessarily be ungenerated and immortal." (Plato, 1925b, §§ 245d–246a)

Plato's "soul" is tripartite: He likens it to "the composite nature of a pair of winged horses and a charioteer." The winged horses are the forces of good and evil, and the charioteer is "mind." Plato appears to regard such a soul as a quality of man, only, although it can temporarily stay with an animal in the eternal revolution. (Plato, 1925b, §§ 246a–249b)

With Aristotle, the vital force is "soul", which is separate from "mind." "Mind" is eternal, but "soul" perishes with the body. "Soul" makes the body an organic whole, which has purposes. Every living thing has "soul", but only a small minority have "mind." "Soul" makes man move and observe, but only with "mind" can he understand mathematics and philosophy. (Russel, 1979, pp. 182–183)

Table 1. Life force in cosmology – antiquity

	<b>Early cosmologies in the 5th century B.C.</b>	<b>Plato (427–347 B.C.)</b>	<b>Aristotle (384– 322 B.C.)</b>
<b>Life force as the driving force in cosmology</b>	Anaxagoras (c.500– 428 B.C.): <i>nous</i> or mind present in living things, only, but it is the source of all motion	God creates the "forms" that build up the world; man has soul where mind drives the forces of good and evil	God creates the "forms" that build up the world; every living thing has soul for moving and observing, but only man has mind for understanding
<b>No life force</b>	Democritus (c.460 – c.370 B.C.): movement and indivisible elements, atoms, are forever		



In addition to “soul”, Aristotle gives every living thing a “nature”, which is its purpose or reason to exist. Also, the elements have a “nature.” “Nature” includes an internal principle of motion, which is the fulfilling of what exists potentially. That happens in stages, each one of them justified only by the outcome. It appears that “nature” is part of the eternal and unchanging “forms.” Russel (1946) sees that such thinking caused Aristotle to abandon the principle of natural selection, which had been proposed by Empedocles (c.490–c.430 B.C.), a contemporary of Anaxagoras. Consequently, according to Russel, Aristotle’s concept of “nature” became “a great obstacle to the progress of science, and a source of much that was bad in ethics.” (Russel, 1979, pp. 214–215)

Except for the views of the atomists, which were not widely supported, the cosmology of Classical Greece included a vital force as a necessary element. (Table 1) Did it find any use outside the discussion of the results of divine creation?

### Art as imitation

In Classical Greece, painting, sculpture, and architecture were mainly equated with handwork (*demiurgia*). As skills (*tekne*), they belonged to creative or making skills (*poietike*). The word *poesis*, which was used for poetry, also meant creating, doing or making. Poietic skills were divided into material and symbolic skills. Sculpture and painting belonged to material skills, which were considered minor, while poetry and music were symbolic skills. (Oksala, 1978, p. 52; Niiniluoto, 1992, p. 7)

Despite all classification that was based on skills, art meant something very different, especially for Plato, but also for Aristotle. It is true that formally, both Plato and Aristotle considered art imitation or *mimesis* – although Collingwood (1938) translates the word as “representation”. Dickie (1971) calls the views of Plato and Aristotle as “object-centered” in contrast to the “artist-centered” view of the expression theory, which emerged in the 19<sup>th</sup> century. (Collingwood, 1958, p. 42; Dickie, 1990, pp. 34–38) With Plato, a painting depicting an object in the illusory world of senses, for example, was a work of an imitator who produced “a product three removes from reality.” (Plato, 1969, § 597e) Dickie calls it a reflection of a reflection. With Aristotle, instead, art imitates forms in the real world of senses. (Dickie, 1990, pp. 35, 36) For him, the reason for this – and the basis of creating art – was in the audience: man experiences “understanding” images, melodies, or rhythms as “extremely pleasant.” (Aristotle, 1996, pp. 6–7)

With Plato, the “fevered” form of state needs “imitators, many of them occupied with figures and colors and many with music – the poets and their assistants, rhapsodists, actors, chorus-dancers, contractors.” (Plato, 1969, §§ 372e, 373b) In all, art appears somehow suspect: it is unreliable as the source of information; it may suggest wrong ways of action; and, by appealing to passions, it may produce bad citizens. (Cf. e.g. Dickie, 1990, p. 35; Vuorinen 1996, pp. 44–46). Such detrimental effects can be alleviated through censorship. However, first, the state needs “craftsmen who by the happy gift of nature are capable of following the trail of true beauty and grace.” (Plato, 1969, §§ 401a–e)

On the other hand, with Plato, creation and reception of art is connected with something special: everybody is in the throes of divine madness. The artist imparts the inspiration received from Muse to his audience. The force of enthusiasm is transmitted not only by the artist, but also by his art. For example, the interpreter of a poem becomes overpowered by it and infects the audience with his enthusiasm. (Plato, 1925a, §§ 533d–536d) A poet possessed by divine inspiration produces better poetry than one who works

rationally. (Plato, 1925b, §§ 244d, 245a) It is questionable whether art can at all be produced rationally:

“For a poet is a light and winged and sacred thing, and is unable ever to indite until he has been inspired and put out of his senses, and his mind is no longer in him: every man, whilst he retains possession of that, is powerless to indite a verse or chant an oracle.” (Plato, 1925a, § 534b)

Unlike Plato, Aristotle does not discuss an artist’s inspiration or its source but his possibilities to have influence. He analyzes poetry by its instruments, methods, and target audience. On the other hand, Aristotle, too, has us understand that mere imitation of nature is not sufficient to create art. According to him, the historian tells what has happened, but the poet expresses what is probable or necessary. He “must be a maker of plots rather than of verses.” (Aristotle, 1996, pp. 13–17)

In the opinion of Plato and Aristotle, art has a powerful influence on the audience. With Aristotle, however, this influence is mainly positive. Tragedy, for example, can purify a spectator of pity and fear. What happens is *katharsis*. (Dickie, 1990, pp. 36–38; Vuorinen, 1996, pp. 61–65; Aristotle, 1996, pp. 10, 22, 41, 47, 48) Everyone has such feelings, but some people are especially receptive to them:

“[–] under the influence of sacred music we see these people, when they use tunes that violently arouse the soul, being thrown into a state as if they had received medicinal treatment and taken a purge; the same experience then must come also to the compassionate and the timid and the other emotional people generally in such degree as befalls each individual of these classes, and all must undergo a purgation and a pleasant feeling of relief; and similarly also the purgative melodies afford harmless delight to people.” (Aristotle, 1944, § 1342a)

It is clear that with both Plato and Aristotle, creating art requires more than an ability to imitate nature. With Plato, the force of divine enthusiasm goes from the artist to the audience via a work of art or its interpreter. With Aristotle, the artist, who must have the ability to create synthetic reality, produces a similar force. (Table 2) On the other hand, the expectations of creativity appear very conservative. With Plato, the performance is ugly and false “when anyone images badly in his speech the true nature of gods and heroes, like a painter whose portraits bear no resemblance to his models.” (For ugly and false, see Plato, 1969, § 377e)

Table 2. Vital force in art – imitation theory of art

	Plato	Aristotle
<b>Universal force</b>	art imitates forms in the illusory world of senses; divine inspiration received from Muse is transmitted by the artist and his art to the audience	
<b>Force created by the artist</b>		art imitates forms in the real world of senses; the artist who is able to conceive synthetic reality creates a force that is transmitted to the audience through his art
<b>No force</b>		

### Vital force in art

From Antiquity, the views of art migrated to the Renaissance. Although in the Middle Ages, art was even less separate from skills than in Antiquity, (Vuorinen, 1996, p. 117) a creative individual was seen to act under the guidance of an external spirit, (Albert & Runco, 1999, p. 18) like Plato's poet. In the early Renaissance, the status of art became emphasized in a rational manner. The only "divine force" that appears in the instructions for a painter by Leon Battista Alberti (1404–1472) in 1435 is the one that "not only makes absent men present, as friendship is said to do, but moreover makes the dead seem almost alive." The goal of painting was "to hold the eyes and soul of the observer." This was accomplished through "composition and the reception of light." (Alberti 1966, pp. 63, 89) Toward the end of the 15th century, a new conception of art started to emerge. The leading neoplatonist Marsilio Ficino (1433–1499) held that an artist combined in his works things that were separate in nature and that the process required inspiration. (Vuorinen, 1996, p. 124) However, Giorgio Vasari (1511–1574), in the second edition of his biographies of Italian artists in 1568, explains Michelangelo's (1475–1564) greatness as a result of vivid imagination, solitary meditation, and relentless exploration. (Vasari 1997, 348) (Table 3)

Table 3. Vital force in art – the Middle Ages and the Renaissance

	<b>Middle Ages</b>	<b>Leon Battista Alberti (1404–1472)</b>	<b>Marsilio Ficino (1433–1499)</b>	<b>Giorgio Vasari (1511–1574)</b>
<b>Universal force</b>	a creative individual seen to act under the guidance of an external spirit		an inspired artist combines in his works things that are separate in nature	
<b>Force created by the artist</b>				
<b>No force</b>		the goal of painting: "to hold the eyes and soul of the observer"		an artist's greatness is due to vivid imagination, solitary meditation, and relentless exploration

A special vital force was not connected with art before its existence was first totally denied. René Descartes (1596–1650), whose concept of world was dominated by an extreme duality of matter and spirit, argued that the growth of an organism was dependent on the laws of physics, only. With Descartes, universe is created by God, but its composition does not need an Aristotelian soul that inhabits every living thing. Man is the only one with a "soul" as defined by Descartes. It is a rational soul, and with its help, man is able to influence the direction – but not the impulse – of the "animal spirits" whose character is fairly material. Even the limited concept of rational soul was rejected by later Cartesian thinking, which turned into a logical materialism in the 18<sup>th</sup> century. (Russel, 1979, pp. 550–551; Descartes, 1956; Descartes, 1998. Russel's term "vital spirits" has in this connection nothing to do with vitalism as discussed in the present article.

The French term used by Descartes is "les esprits animaux", which is translated as "animal spirits" in the source Descartes 1998. Russel's slightly misleading term is close to J.A. Hollo's poetically beautiful Finnish translation "elonhenget" in the source Descartes 1956.

A new metaphysical line of thinking in the theory of art emerged in 1790 when Immanuel Kant's (1724–1804) *Kritik der Urteilskraft* was published. For Kant, creating art is not a mechanical process that imitates nature. Rather, it happens like an organic process of free nature. (For Kant's view, see Mehtonen, 1992, pp. 230–231) Gadamer (1989) pays attention to the role of a genius in this thinking of the relationship between art and nature: it is through the genius that nature determines the rules of art. (Gadamer, 1989, p. 55) In this respect, Kant's art-producing genius approaches Plato's poet: both are agents of an external force. (Table 4) In the late 18<sup>th</sup> century, the Aristotelian soul, too, flourished again in the form of an "organic force of life", especially due to the influence of J.G. Herder (1744–1803) and J.W. Goethe (1749–1832). (For the influence of Herder and Goethe, see Waenerberg, 1992, pp 17–18) The idea was also reflected by the discourse of art, which emphasized the creative force of nature or the perfection of nature's creations.

### Organic and vital in the 19<sup>th</sup> century discourse of art

Table 4. Vital force in art – Enlightenment and Romantic Movement

	<b>Immanuel Kant (1724–1804)</b>	<b>A.W. Schlegel (1767–1845)</b>	<b>F.W.J. Schelling (1775–1854)</b>
<b>Universal force</b>	creating art happens like an organic process of free nature; nature determines the rules of art through the genius of the artist	"organic" art takes nature for a model; there is a creating and organizing "internal force" in the artist	
<b>Force created by the artist</b>			
<b>No force</b>			perfection and symmetry of organisms as the ideal of visual arts

At the beginning of the 19<sup>th</sup> century, F.W.J. Schelling (1775–1854) made the "objective" expediency of organisms the ideal of visual art. Schelling mainly meant perfection and symmetry in the result, rather than vital forces in the process. Instead, A.W. Schlegel (1767–1845) included a creating and organizing "internal force" in his definition of "organic" art that took nature for a model. In the art discourse of late 19<sup>th</sup> century, the concept of organic still had a dual nature along the same lines: on one hand, it stressed functionality, on the other, vitality. (Waenerberg, 1992, pp. 22–25) (Table 4)

In the early 19<sup>th</sup> century, the internal of romanticism replaced the external of neoclassicism in the expression of ideas. Through the consequent disintegration and eclecticism of style, decorative motifs gained a prominent standing in the theory, teaching, and making of art. (Salo-Mattila, 2000, p. 13) In ornamentation, functionality and vitality combined at the end of the 19<sup>th</sup> century, but at the same time, they separated from natural forms.

In 1856, Owen Jones (1809–1874) stressed “the natural laws which prevail in the distribution of the form” and “the universal law of equilibrium”; and in 1862, Cristopher Dresser (1834–1904) urged the designers to study in the plants the “line of life”, which expressed a “strong vital force.” (Jones, 2001, pp. 477–478; Dresser, 1862, p. 98) In 1861, Eugène-Emmanuel Viollet-le-Duc (1814–1879) held that the force of life could be clearly seen in the forms of the smallest insects and plants, while the forms of big plants exhibited “hesitation” and “softness” that were not suitable as ideals for “monumental sculpture.” (Waenerberg, 1992, p. 161)

Table 5. Vital force in art decorative arts

	<b>Gottfried Semper (1803–1879)</b>	<b>Alois Riegl (1858 – 1905)</b>	<b>Henry van de Velde (1863– 1957)</b>
<b>Universal force</b>		man has an innermost aspiration for “beauty in forms” and a natural sense of figures and symmetry	
<b>Force created by the artist</b>			“a line is a force” that gets its energy from the artist; the nature of art is unitary, and the vital force is in the beauty of art itself
<b>No force</b>	the linear motifs of decoration have developed from weaving and braiding		

Some thirty years later, in 1893, Alois Riegl (1858–1905) stated in his typology of art forms that the historical development of plant ornaments did not reflect new interpretations of natural forms but the development of motifs that originally came from nature. The force behind such development was man’s natural sense of figures and symmetry, and his need to form a whole out of various separate elements. (Podro 1986, pp. 71–73, 95–97) Riegl appears to have needed man’s innermost aspiration for “beauty in forms” to overturn the prevalent concept which postulated that geometrical ornaments had protoforms. According to Riegl, the concept, which suited a “materialistic view of life”, had dominated art research since the early 1860’s when Gottfried Semper (1803–1879) held that the linear motifs of decoration had developed from weaving and braiding. (Riegl, 1893, pp. 9–11, 31–32) (Table 5)

Separation from natural forms became complete when Henry van de Velde (1863–1957) ended up with the independence of the line in 1902. (Table 5) According to him, “a line is a force” that gets its energy from the one who draws it, and the use of natural forms as an ideal is a “lie.” (Waenerberg, 1992, pp. 149, 152) Van de Velde arrived at his theory of the line starting with the view that rhythm was “an absolute ruler and dominant law in architecture.” From the line, he proceeded to complementary forms and new ornamentation that “supports the structure and accentuates the material.” (Frosterus, 1986, pp. 70–73; for the ornament, see also Waenerberg, 1992, pp. 149–154) For van de Velde, the nature of art was unitary, terms like “applied art” and “art handicraft” had no validity, and the vital force was in the beauty of art itself. (Van de Velde, 2000)

### Art as an expression in the 20<sup>th</sup> century discourse

Van de Velde’s line that received its power from the artist was connected with the expression theory of art that emerged in the 19<sup>th</sup> century. Dickie (1971) sees that the expression theory was originally based on the Romantic aspiration to get beyond the limits of sensory knowledge. The artist was capable of transmitting such higher knowledge to the audience through the art that was an expression of his feelings. Unlike in the imitation theory, art did not have to represent anything to the audience; the expressive power of music was seen to support the expression theory in this respect. (For the expression theory, see Dickie, 1980, pp. 38–40)

In 1907, some years after Van de Velde wrote the “line is a force” article, Henri Bergson (1859–1941) published his *L’Évolution créatrice*. Bergson’s world is dominated by two opposite forces: climbing life and falling matter. Life is the vital impulse that has been active since the early beginning of the world and tried to get free of matter’s chains and control it. According to Bergson, the shortcoming of both mechanistic and teleological cosmology is the negation of everything that is essentially new. In the mechanistic explanation, future is implicitly part of the past, while in the teleological explanation, the result of development can be known beforehand. Bergson considers evolution creative like the work of an artist: the desire to act exists in advance, but the quality of action cannot be known before the desire is satisfied. (Russel, 1979, pp. 757–758)

Table 6. Vital force in art – Expression theory of art

	Henri Bergson (1859–1941)	R.G. Collingwood (1889–1943)	Eliel Saarinen (1873–1950)
<b>Universal force</b>	two opposite forces: climbing life and falling matter;		every form radiates its own specific influence, like every man; with man, this is called “aura”;
<b>Force created by the artist</b>	with intuition, the artist aspires to enter his object’s innermost and identify with the intention of life that the object expresses	the artist expresses emotions, and “art proper” is the image that he creates of the result in the course of the process	when creating art, man “transposes his ‘aura of man’ into his ‘aura of form’”
<b>No force</b>			

It is also essential in Bergson's thinking that reason and instinct are opposite. At the best, instinct is consciously reflecting intuition. With intuition, the artist aspires to enter his object's innermost and identify with the intention of life that the object expresses. (Bergson, 1998, pp. 176–177) (Table 6) Reason exercises sorting in time and space: it does not produce evolutionary but serial thinking. Bergson makes a difference between mathematical time and "duration." Mathematical time is a form of space, while the time of life is duration. Memorized duration is an essential feature of life and mind. (Russel, 1979, pp. 758–759)

Bergson's writings that expressed the evolutionary in the working process of the artist and the intuitive in his interpretation of an object influenced later thinking in art theory. In the theory of R.G. Collingwood (1889–1943), which was published in 1938, the artist expresses emotions, but it is impossible for him to know in advance what he is going to create. If he knows it, the result is not art but craft. (Collingwood, 1958, pp. 111–117; Dickie, 1990, p. 77) Considering the relationship between art and craft, it should be noted that for Collingwood, "art proper" is not the result of the whole working process but the image that the artist creates of the result in the course of the process. (Collingwood, 1958, pp. 130, 139–144; Dickie 1990, p. 78) Once the result has taken shape in mind, art ceases and craft begins. Consequently, the manifestation of art requires craft. As Theodor Adorno (1903–1969) asserted in 1965:

"Only unreasonable dilettantism or blatant idealism would attempt to deny that each authentic, and in the broadest sense, artistic activity requires a precise understanding of the materials and techniques at the artist's disposal, and to be sure, at the most advanced level." (Cit. Adamson, 2007, p. 10)

Unlike Bergson, Collingwood dissociated himself from all theories where art spontaneously arises from the subconscious of the artist or comes into existence through him driven by mysterious forces. (Collingwood, 1958, pp. 126–127) Instead, his contemporary Eliel Saarinen (1873–1950), writing about form in art and architecture, resorted to forces that remind one of Bergson and the expression theory of art. (Table 6) Saarinen's thoughts were published in 1948. According to Saarinen, every form radiates its own specific influence, like every man. With man, this is called "aura." When creating art, man is subconsciously obliged to act in accordance with his own personality, and while doing that, he "transposes his 'aura of man' into his 'aura of form'." (Saarinen, 1985, pp. 123, 125–126)

For Saarinen, vitality means "a life preserving energy" necessary for all organic life. Man's creative instinct must be "vitality concentrated at the very moment of creation." The consequent "expressiveness of form" determines "the value of art." Such expressiveness is often best seen in "a fresh sketch of momentary inspiration." Although Rubens, for example, owes his reputation to his "large and magnificently executed" paintings, "the strength of his creative vitality lies in his 'unfinished' sketches." (Saarinen, 1985, pp. 146–152) Rubens, however, used a multistage sketching process for his commissioned works. The process included, for example, conception drawings, small preliminary oils for discussions with the client, and larger oils that were enlarged to the final size by the assistants. (For Ruben's working process, see Lescouret, 1993, pp. 66–82; Scribner, 1982, pp. 21–26)

Saarinen seems to distance himself from both Bergson and Collingwood when he emphasizes that his "argument is not *pro* momentary achievement or *con* sincere study of the problem." The aim is to stress that "the moment of direct creative conception is the vital moment", and as long as the artist works on the form creatively, he infuses "positive strength into his art." The artist has only to know when to stop. (Saarinen, 1985, 152) Saarinen probably understood that his definition of vital creation could easily be interpreted as idealization of creation that emerged from the subconscious. Collingwood had condemned such thinking, but it was common in the early 20<sup>th</sup> century.



### Art without sketches

In the 1930's, Herbert Read (1893–1968) began to promote vitalist sculpture, an invention that he credits to Picasso (1881–1973). Read acted in cooperation with his friend Henry Moore (1898–1986). In 1934, Moore saw in his own art “pent-up energy, an intense life of its own”; it had “spiritual vitality” which went “deeper than the senses.” According to Read, in vitalism, the artist concentrates a universal force and transmits it to his work to affect the audience. (Read, 1994, pp. 76–77, 163, 182; cit. Read, 1994, p. 163) As discussed later, Picasso's thinking turned out to be different. (Table 7)

Lindgren (1996) sees that Read combined the vital impulse and artist's intuition from Bergson with the theory of Henri Focillon (1881–1943). Focillon speculated on the spontaneous development of natural forms that had ended up in art. According to Lindgren, such “biological view changed creative work into a process where sketches and preparatory stages were unnecessary.” Moore's carving “guided by the material” was an example of such a process. (Lindgren, 1996, pp. 20–22)

Table 7. Vital force in art – Modernism

	<b>Herbert Read (1893–1968)</b>	<b>Henry Moore (1898–1986)</b>	<b>Pablo Picasso (1881–1973)</b>
<b>Universal force</b>	in vitalism, the artist concentrates a universal force and transmits it to his work to affect the audience	saw in his own art "pent-up energy, an intense life of its own"; it had "spiritual vitality" which went "deeper than the senses"	
<b>Force created by the artist</b>			
<b>No force</b>			"the artis gathers emotions from everywhere: from the sky, from the earth, from a piece of paper, from a passing form, from a spider's web"

But did such “direct” sculpting really take place without any plans? Starting in the late 1930's, at the latest, Henry Moore, even when carving in wood or stone, used a multistage process with maquettes and working models. Barbara Hepworth (1903–1975), another prominent vitalist sculptor, thought that the idea of carving should be clearly formed before starting and sustained during the long process of working. From the 1930's, she did it by drawing. (Salo-Mattila, 1997, p. 115; Read, 1994, pp. 173–176; Hammacher, 1993, p. 51) She admired Brancusi (1876–1957) who advocated carving without clay modeling, but who was also critical of the practice (Read, 1994, pp. 191–199; Hammacher, 1993, pp. 17–22):

“Working direct in stone or wood is the truest path to sculpture, but for those who have not yet learned to walk it is also the worst path. And in the last resort it matters nothing whether the sculptor works directly or indirectly; it is the finished work that counts.” (Cit. Hammacher, 1993, p. 20)

According to Lindgren, in Finland, material-based carving without any sketching was connected with the vitalist ideals that dominated the rhetoric of sculpture and criticism from the 1940’s until the 1970’s. (Lindgren, 1996, pp. 156–160) These ideals spread from the discourse of sculpture to those of design and textile art. (Salo-Mattila, 1997, pp. 65, 114–115) In the processes of the latter two, working without sketches seems even more improbable than in sculpture. For example, in the early 1950’s, the Finnish tapestry artist Eva Anttila (1894–1993) was understood to weave without sketches although, in reality, she used an extensive sketching process even for her non-commissioned works. Furthermore, the lack of sketches in a physical form does not mean that the works are created without sketching. The Norwegian artist Hannah Ryggen (1894–1970) did not use any sketch or working drawing when creating a tapestry. However, she explained that she made it ready in her mind as a result of an internal sketching process that sometimes took years to complete. (Salo-Mattila, 1997, pp. 65, 115) It is interesting that, according to the theory of Collingwood, “art proper” does not only allow for but, in certain cases, seems to be limited to mental sketching. (Collingwood, 1958, pp. 130, 134–135, 139)

On the other hand, sketching in any form is often superfluous in painting, especially when it takes place without a commission and, consequently, without a client. In a 1996 documentary, the Danish expressionist Per Kirkeby (1938–) describes his process as starting with the challenge of an empty canvas: “one must start with something.” The film shows how he paints the first strokes standing on the scaffolds in front of the very large canvas, builds on, experiments straight on the canvas, experiments by using smaller canvases on the side, changes and builds so that the result reflects the great amount of work done. (For the film, see Jargil, 1996)

In some cases, it is difficult to say where sketching stops or if it has ever started. From August 1959 to August 1961, Picasso (1881–1973) worked on Manet’s *Le déjeuner sur l’herbe* to produce his own version on the subject. In four successive sequences, with a break of a year between the first and the second, he produced two hundred drawings, twenty-seven paintings, and five linocuts. (For Picasso’s series, see Wollheim, 1987, pp. 243–248) Some works are taken to be “definitive” for a sequence, but no work is considered a sketch for another. In Picasso’s words:

“A painting is never thought out and decided upon ahead of time, because it is subject to changes in thinking while in process, and when it is finished, it continues to change, according to the feelings of whoever looks at it.” (Cit. Porzio & Valsecchi, 1973, p. 79)

An art object, like any object, was a natural starting point for the process. As Picasso saw it, “There is no such thing as abstract art. You have to start from somewhere.” One could remove any appearance of reality but not the idea of the object “because it is the object that has touched the artist, that has excited his ideas, that has stirred his emotions.” (Cit. Porzio & Valsecchi, 1973, p. 81) Above all, Picasso wanted his own paintings “contain emotion.” (Cit. Porzio & Valsecchi, 1973, p. 79) He saw an artist as one who is able to create synthetic reality (Table 7) borrowing from an old master’s painting, if necessary:

“The artist gathers emotions from everywhere: from the sky, from the earth, from a piece of paper, from a passing form, from a spider’s web [–] You must take what you can use where you find it, but not from your own work. It would be revolting for me to copy myself, but I don’t hesitate to take what I want from a portfolio of old drawings.” (Cit. Porzio & Valsecchi, 1973, p. 83)

### Conclusions for craft

From the viewpoint of craft, the past discourse of vital force in art does not yield much. The 19<sup>th</sup> century theorization of ornament, which ended up with van de Velde's views at the turn of the 20<sup>th</sup> century, is an exception. Van de Velde's line of force and synthesis of art extended the idea toward craft, but there was no immediate follow-up. In the early 20<sup>th</sup> century, theories of art maintained the dichotomy of art and craft whether they allowed for a vital force or not. The views began to change in the late 20<sup>th</sup> century.

Following Risatti (2007), one can say that craft gives form to a function and art gives meaning to a form. In the same way, artifacts can represent either "absolute utility", which is "completely non-aesthetic", or "absolute art", which is "completely aesthetic." Whether aesthetic qualities of an artifact place it in the "gradient" from craft to art (Figure 2) and make it an "aesthetic/art object" depends on the intention of the maker and on the aesthetic experience, both as judged subjectively by "a competent beholder." (Risatti, 2007, pp. 242–244, 272, 278)

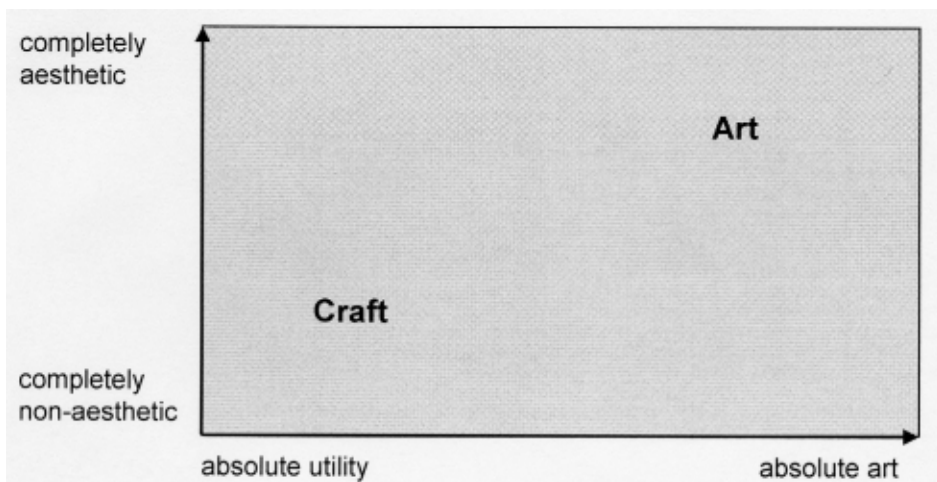


Fig. 2.: Artifacts in the present unitary view of art. (Cf. Risatti, 2007, p. 243)

Once the dichotomy of art and craft is broken, we could apply vitalist thinking to the creative processes of art craft and design. However, our overview reveals that starting with Antiquity, philosophers and theorists of art have seen vital forces that are channeled or created by an artist, but the artists themselves have largely been silent on the subject. As Plato has it while discussing the banning of the poets from the ideal state: "[--] there is from of old a quarrel between philosophy and poetry." (Plato, 1969, § 607b)

### References

- Albert, R.S. & Runco, M.A. (1999). A history of research on creativity. In R. Steinberg (Ed.) *Handbook of creativity*, (pp. 16–31). Cambridge: Cambridge University Press.
- Alberti, L.B. (1966). *On painting*. Translated by John R. Spencer. New Haven, CT: Yale University Press.
- Adamson, G. (2007). *Thinking through craft*. Oxford: Berg.
- Aristotle. (1989). *Metaphysics*. Translated by Hugh Tredennick. Cambridge, MA: Harvard University Press; London William Heinemann. Available at the Perseus Digital Library. <<http://www.perseus.tufts.edu>> 23.8.2008.
- Aristotle. (1996). *Poetics*. Translated by Malcolm Heath. London: Penguin.

- Aristotle. (1944). *Politics*. Translated by H. Rackham. Cambridge, MA: Harvard University Press; London: William Heinemann. Available at the Perseus Digital Library. <<http://www.perseus.tufts.edu>> 23.8.2008.
- Bergson, H. (1998). *Creative evolution*. Mineola, NY: Dover.
- Blackmore, S. (1999). *The meme machine*. Oxford: Oxford University Press.
- Collingwood, R.G. (1958). *The principles of art*. Oxford: Oxford University Press.
- Csikszentmihalyi, M. (1999). Implications of a systems perspective for the study of creativity. In R. Steinberg (Ed.) *Handbook of creativity*, (pp. 313–335). Cambridge: Cambridge University Press.
- Descartes, R. (1956). Mielenliikutukset. In *Teoksia ja kirjeitä . René Descartes*, (pp. 155–181). Translated in Finnish by J.A. Hollo. Helsinki: Werner Söderström.
- Descartes, R. (1998). Treatise on man. In S. Gaukroger (Ed.) *René Descartes. The world and other writings*, (pp. 99–169). Cambridge: Cambridge University Press.
- Dickie, G. (1990). *Estetiikka*. Helsinki: Suomalaisen Kirjallisuuden Seura.
- Dresser, C. (1862). *The art of decorative design*. London.
- Frosterus, S. (1986). Henry van de Velde – tänkaren och teoretikern. In *Henry van de Velde 1863–1957*, (pp. 63–76). Helsinki: Taideteollisuusmuseo.
- Gadamer, H-G. (1989). *Truth and method*. Second edition. London: Sheed & Ward.
- Hammacher, A.M. (1993). *Barbara Hepworth*. London: Thames and Hudson.
- Jargil, J. (1996). *Per Kirkeby – Vinterbillede*. Documentary. Copenhagen: Statens Filmcentral.
- Jones, O. (2001). *The grammar of ornament*. London: Dorling Kindersley.
- Lescourret, M-A. (1993). *Rubens. A double life*. Chicago: Ivan R. Dee.
- Lindgren, L. (1996). *Elävä muoto. Traditio ja modernisuus 1940- ja 1950-luvun suomalaisessa kuvanveistossa*. Helsinki: Valtion taidemuseo.
- Mehtonen, L. (1992). Kant taidosta ja taiteesta. In I. Halonen, T. Airaksinen and I. Niiniluoto (Eds.) *Taito*, (pp. 219–232). Helsinki: Suomen Filosofinen Yhdistys.
- Niiniluoto, I. (1992). Taito-kollokvion avaussanat. In I. Halonen, T. Airaksinen and I. Niiniluoto (Eds.) *Taito*, (pp. 5–9). Helsinki: Suomen Filosofinen Yhdistys.
- Oksala, P. 1978. *Ihminen, kulttuuri ja taide*. Jyväskylä: Gummerus.
- Plato. (1925a). *Ion*. Translated by W.R.M. Lamb. Cambridge, MA: Harvard University Press; London: William Heinemann. Available at the Perseus Digital Library. <<http://www.perseus.tufts.edu>> 23.8.2008.
- Plato. (1925b). *Phaedrus*. Translated by Harold N. Fowler. Cambridge, MA: Harvard University Press; London: William Heinemann. Available at the Perseus Digital Library. <<http://www.perseus.tufts.edu>> 23.8.2008.
- Plato. (1969). *Republic*. Translated by Paul Shorey. Cambridge, MA: Harvard University Press; London: William Heinemann. Available at the Perseus Digital Library. <<http://www.perseus.tufts.edu>> 23.8.2008.
- Podro, M. (1986). *The critical historians of art*. New Haven, CT: Yale University Press.
- Porzio, D. & Valsecchi, M. (1973). *Pablo Picasso. Man and his work*. Secaucus, NJ: Chartwell.
- Rautio, P. (2001). Pienestä näkee. *Helsingin Sanomat*. Viikkoliite Nyt, 4.5.2001.
- Read, H. (1994). *Modern sculpture*. London: Thames and Hudson.
- Riegl, A. (1893). *Stilfragen. Grundlegungen an zu einer Geschichte der Ornamentik*. Berlin: Georg Siemens.
- Risatti, H. (2007). *A theory of craft. Function and aesthetic expression*. Chapel Hill, NC: University of North Carolina Press.
- Russel, B. (1979). *History of western philosophy and its connection with political and social circumstances from the earliest times to the present day*. London: Unwin.
- Saarinen, E. (1985). *The search for form in art and architecture*. Mineola, NY: Dover.
- Salo-Mattila, K. (1997). *Picture vs. weave. Eva Anttila's tapestry art in the continuum of the genre*. Helsinki: University of Helsinki, Department of Art History.
- Salo-Mattila, K. (2000). *Keisarinnan sermi. Naiskäsityön suhde taiteeseen 1800-luvun loppupuolella*. Helsinki: Helsingin yliopisto, kotitalous- ja käsityötieteiden laitos.
- Scribner, C. (1982). *The triumph of the Eucharist. Tapestries designed by Rubens*. Ann Arbor, MI: UMI Research Press.
- Van de Velde, H. (2000). Observations toward a synthesis of art. In I. Frank (Ed.) *The theory of decorative art*, (pp. 194–200). New Haven, CT: Yale University Press.
- Vasari, G. (1997). *Taiteilijaelämäkertoja Giottoista Michelangeloon*. Helsinki: Taide.
- Vuorinen, J. (1996). *Estetiikan klassikoita*. Helsinki: Suomalaisen Kirjallisuuden Seura.

- Waenerberg, A. (1992). *Urpflanze und Ornament. Pflanzenmorphologische Anregungen in der Kunsttheorie und Kunst von Goethe bis zum Jugendstil*. Helsinki: The Finnish Society of Sciences and Letters.
- Wollheim, R. (1987). *Painting as an art*. London: Thames and Hudson.
- Young, E. (1759). *Conjectures on original composition. In a letter to the author of Sir Charles Grandison*. London: A. Millar and R. and J. Dodsley. Available at Representative Poetry Online. < <http://rpo.library.utoronto.ca/display/index.cfm>> 23.8.2008.

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## WOMEN'S EVERYDAY DESIGN – DECORATIONS ON APRONS IN THE FIRST HALF OF THE 20<sup>TH</sup> CENTURY

### abstract

*This article bases on the ongoing PhD research Aprons in front of women. It is situated in the intersection of three fields: craft science, cultural history and women's studies focusing into the past in Finnish context. The purpose of the hermeneutic study is to find out how the rules of using and making aprons have defined social gender. In this article I will shed light on aprons from three different viewpoints. Firstly, some information about the history and the traditional beliefs will be presented. Secondly, aprons as handicrafts as well as the recommended ways of decoration will be under discussion. Thirdly, four bases for design that could be found out from the advice and instructions for making aprons will be presented: function based design, material based design, decoration based design and image based design.*

**keywords:** aprons, clothing, craft history, design, gender

### Introduction

This article is based on the ongoing PhD research, *Aprons in front of women*. This hermeneutic research is in the intersection of three fields: craft science, cultural history and women's studies.

The purpose of the study is to find out how the rules of using and making aprons have defined social gender.

The focus is on the aprons, which have been worn and made at home but also at school. The study concentrates on the Finnish context from the 1920's to the 1960's. Professional aprons, like aprons for nurse or waitress uniforms are not under examination. The theoretical background of the study includes craft science in the perspective of clothing and craft making, and women's studies in the perspective of social construction of gender. Aprons are under examination both as crafts and as a part of clothing. The historical research tradition also has a remarkable role in this study, because the research subject is in everyday context in the past.

The main source material for the study has been collected from women's magazines and schoolbooks. These sources highlight the way in which women were instructed to make and use their aprons. Moreover, old Finnish films and novels were used as sources to shed light on the question of how those rules were represented in women's everyday lives. There has been a variety of rules regarding how, where and when aprons should be used and different kinds of instructions for and advices on how to make them. Those written rules also express, not only clothing codes, but the unwritten, even unconscious, social norms of being an acceptable woman. Although the study is focusing on the past, gender constructions are built inside dressing codes at present too.

In this article I will shed light on aprons as garments from different viewpoints. Firstly, some background information about the history and the traditional beliefs will be presented. Secondly, aprons

will be presented as handicrafts and the recommended ways of decorating clothing will be under discussion. Thirdly, as a conclusion, I will briefly present the symbolic meanings of aprons in the first half of the 20<sup>th</sup> century.

### **The tradition of aprons**

For centuries aprons have been garments with pronounced meanings and signs. Especially aprons for women have included a variety of information. Firstly, in the perspective of other people, aprons were signs of the woman's age, her marital status, her social class and wealth, as well as her handicraft skills (Sirelius 1916, p. 1). Secondly, many customs of wearing aprons have been based on strong traditional beliefs (Nirvi 1955, pp. 49–50). Aprons were appreciated as protective clothing against immorality, but on the other hand, women were also obliged to wear aprons.

It is widely accepted that aprons were essentially regarded as protectors against the magical sexual power of women (Nirvi 1955, pp. 54–55). From all accounts it seemed to be very important that aprons were complete, either holes or patches on aprons were not approved, because the genitals of women were supposed to be covered by aprons. Several old stories demonstrate how women, who used worn out or sewed aprons, fell in sin. It was believed that an incomplete apron would bring bad luck not only for the one who wore it, but also her daughter, who could get pregnant outside marriage. Only old maids, who were past the suitable age for marriage and whose sexual power seemed to have disappeared, were allowed to break the rules (*ibid.*).

If a woman lost her apron or accidentally burnt it, it was a bad sign and brought bad fortune according to traditional beliefs. The absence of an apron might bring misfortune also for outsiders. It was believed that a man, who was going to travel lost his luck if a woman without an apron greeted him (Nirvi 1955, pp. 52–53). On the other hand, people used to think that aprons had magical powers. At the door of a cowshed a housewife's apron restrained cows from running away. Butter got churned more easily if the churning turned her apron on the left hip and said some magic words. Furthermore, aprons have been used to improve the breeding of cattle. People also believed that the apron of a pregnant woman around a cow's neck was a good resource (*ibid.*).

According to the Scandinavian beliefs the magic of pregnancy was an important reason for wearing aprons (Nirvi 1955, pp. 52–53). In many cultures people who were outsiders to the normal composition of the society, have been regarded as either dangerous or vulnerable. A pregnant woman often had the status of an outsider, because she was between two states. (Douglas 2000, pp. 156–159) In the one state, she did not have a child yet, but in the other state; she had a child inside of her. A woman with a child denoted danger not only to herself but also to other people. Therefore an apron was needed for protection. Firstly, an apron as a demure garment hid the pregnancy and secondly, an apron was defined as a ritual piece of clothing.

Especially when women were out of their houses wearing aprons was considered important. If a married woman was outdoors far from her home without her apron, men were allowed to defame her without a punishment. This suggests that a woman with an apron was protected by an unwritten law but a woman without an apron was without rights. An old dictum from Estonia tells about a similar attitude: It was allowed to throw a stone at a woman who did not wear an apron (Wikman 1915, pp. 5–6, p. 67).

Aprons were characteristically wives' clothes, but also unmarried women wore them. The customs of young and unmarried women varied depending on regions. In spite of differences between local customs, especially in ceremonious events such as church-going or a visit to a court of justice, aprons were required. It has happened that a woman without her apron was not allowed to testify in court (Nirvi 1995, pp. 49–57).



There has been a tendency of forcing women to wear clothes which were more covering than normally in special occasions (Flugel 1971, p. 104). Consequently, the unwritten norms of wearing aprons in public places appear as the global manifestation of covering women.

At the turning point of the 19<sup>th</sup> and the 20<sup>th</sup> century the practical aspects of aprons became more important and the traditional beliefs took the second place (Sipilä 2006, pp. 233–277). Step by step, women on the lower stratum of the society learned to wear their aprons for the same functional purpose as in higher society: to protect clothes against dirt. In spite of the protective function aprons still had symbolic meanings as well. A pure white and well ironed apron was a sign of cleanness of the home and the purity of the inhabitants. The white aprons of the maids also gave glory to the lady of the house. Respectively, a woman who wore a dirty and creased apron was regarded as an untidy person (*ibid.*).

In spite of the ideology of cleanliness, women, especially in the lower society, alighted on the many ways of using their aprons for various practical uses. Aprons were used as towels and pot holders, even for carrying firewood. There were many personal, but not unique, modes of using an apron in a specific way. In the countryside it was possible that a woman gave birth to a child on a field's edge. After the childbirth the woman would enfold her apron around the newborn child and hang it on a tree to wait until all the duties were completed and it was time to leave the field (Helsti 2000, pp. 132–135).

The source material from the beginning of 20<sup>th</sup> century presents how aprons show women's status in a class society. For women of higher society it was acceptable to wear their aprons only in extremely private occasions. In women's magazines writers advised young middleclass housewives to take off their aprons as soon as their husband came home. Also women, who worked as servants in private homes, took off their aprons if they went outside of the house. In the countryside, especially among country people, manners were different and changed more slowly. It was common to visit neighbours without taking aprons off. In addition, elderly country women continued to comply with the old traditional rules to use their aprons also in public occasions like in churches.

### **Straight rules for making ideal aprons of the beginning of 20<sup>th</sup> century**

In the beginning of 20<sup>th</sup> century there were instructions for making aprons written by generally accepted experts. They told what kind of colours, stitches, figures and materials were accepted for textiles. One of those authorities was Lilli Törnudd. She wrote several textile books, as well as books for use in schools and teacher seminars. According to her, an important reason for learning to make textiles was to develop one's talents to understand beauty and learn to produce beautiful but practical textiles. The beauty ideal was defined by authorities from the higher society.

It appears that the experts did not trust women's taste and skills to design their own decorations. They accentuated in some textile books that the best way to make beautiful textiles was to follow the designs made by professional artists. Models for decoration were recommended to be taken from books or magazines. Some experts did not value folk art and decorations on colourful folk textiles much, which was quite a common attitude in the 1920's (see e.g. Nissinen 1929; Elenius 1913). According to contemporary ideologies several bright colours together were elegant. Unrefined people as well as young children combined many bright colours together, but not sophisticated people (Törnudd 1917, pp. 8–9). It was school teachers' responsibility to make children understand that only two bright colours could be used in one piece of textile. Between the two bright ones a neutral colour like grey, white or black was useful. Also tones that were tinted with the same colour like greyish green, greyish red and greyish blue were recommended to be used together (*ibid.*)

Advertisements suggest that while the main audience of the magazines was from the higher society,



many industrially produced textile materials were not well known. Therefore the best way to choose materials for clothing was to imitate well known sophisticated people (see e.g. Kotiliesi 1926/16, 477). Nevertheless, it has been noticed that in the beginning of the 20<sup>th</sup> century the level of knowledge of materials varied and textile materials were new for the greatest majority.

### **Different aprons for different situations**

A book called *Esiliina* (Apron) was published in 1934. The authors shed light on various aprons (Gestrin and Somersalo 1934). They underlined the importance of choosing the right kind of material for different kinds of aprons. There were recommendations for having aprons for different kinds of work and for various users: a dark apron for working in kitchen if there were much smoke; white aprons for clean kitchen duties like baking; big aprons for protecting other clothes were needed with little children; waterproof aprons for making dishes or doing laundry; aprons for carrying firewood; aprons for working in garden; aprons for Sundays; aprons for housewives, aprons for little girls and little boys; aprons for school girls etc (ibid.).

Like in many school books also in *Esiliina* the instructions on how to make aprons were quite clear and unequivocal. On aprons, like on other clothes, simple adornments were recommended (Gestrin and Somersalo 1934, pp. 12–17). If the fabric itself was striped or checked, changing of the direction of the stripes or checks was decorative enough. It was acceptable to decorate aprons of one colour with some colourful or patterned fabrics. Cross stitching and other basic embroidery stitching seemed to be useful for making decorations and ornaments. Also appliqué and different kinds of ribbon decorations were mentioned (ibid.). Basically, *Esiliina* presented almost all the decoration types that were used also later on except textile printing, which took place on the 1950's.

### **Practical aprons and saving materials**

There was a great contrast between texts about aprons before and after the Second World War. Because of the war materials were limited and therefore it was impossible to make clothes exactly according to the authorized instructions published in books or magazines. Under duress women had to design their own models and make their own applications with the limited materials. This could also be seen as a positive effect. If nothing else, the women who enjoyed making their own designs received more encouragement than before.

In the 1940's wearing and making of aprons of reused materials was considered as a sign of an economical and skilful woman. Due to the severe lack of textile materials all that could be found were used over again. In magazines there were instructions on how to find materials for aprons. For instance men's timeworn shirts were suitable material for aprons of little girls. Although the collar and sleeves were scuffed, the back and front pieces were recyclable. The old flour sacks, which were made of tightly woven cotton, were also recommended to be used as materials for aprons (Kotiliesi 1943/17, the inside cover). Many details for aprons could be made of recycled materials as well. Laces or nice pieces of embroideries from timeworn clothes were useful for decoration. In the time when everyday life was hard, nice decorations on clothing were valued more than before, as it was written in *Kotiliesi* (1943/11, p. 370): "A little happy stripe cheers up your apron and it cheers up your life as well".

Especially after the Second World War it was recommended in magazines to save and use all the scraps and little pieces of textile that could be found. Some aprons were constructed from pieces as well. Patchwork aprons could even be reversible. When one side got dirty, the other one still looked clean (Kotiliesi 1949/11,

p. 274). The little pieces were also useful for appliqué decorations, which caught on. On one hand, making appliqué decorations was much faster than embroidery, and saving time for many everyday duties was needful. On the other hand, it was easier to find a little piece of colourful fabric than good quality threads for embroidery.

The lack of materials determined the value of different kinds of textiles and traditional methods become popular. Hand woven fabrics were not old fashioned any more, and even narrow colourful stripes on the hems of hand woven aprons seemed to be important. Also traditional decoration types from Karelia were greatly valued after the war. Those decorations were suitable for hand woven textiles and economical. Many models and stitches could be made with a thread that had been taken of from the fabric. (Kotiliesi 1945/8, p. 246.)

Red and blue colours were common on embroidered decorations. Magazines often told that red-blue combination looked fresh and pretty on white fabrics (see e.g. Kotiliesi 1945/11). But there was also another, more practical reason for using those colours with white: home made soaps with lye were very hard for textiles, and blue and red embroidery threads survived the hard lye wash better than other dyes of threads. According to the sources, many pieces of advice or instructions for making decorations were based on very practical reasons, although the explanations were seldom given.

The time of the Second World War connected people from different social classes. Also social rules - how to wear and how to make aprons - appeared equal for everyone, and aprons became common garments for every woman. Because of the severe lack of clothing materials as well as washing soaps, the practical protective aspect of aprons was greatly valued by all women. Although, according to articles in magazines, it was not necessary to pay too much time and attention for decorating aprons, the pictures in magazines carried another message. In pictures the aprons of housewives were most often pretty nicely decorated. Women were asked to be economical and save their time, but on the other hand it was expected that women were ready to please people close to them with nice looking garments.

## Conclusions

The advice and instructions for making aprons included four different bases for design: function based design, material based design, decoration based design and image based design. In Figure 1 the bases for design are illustrated as they exist in the sources; the image based design is situated in the intersection of the three other bases. The bases appear rarely as mutually exclusive but as two or three overlapping bases. The most of instructions included image based design even if it was not directly mentioned. For example words like pretty, feminine, homely or beautiful determined not only the garment but also the woman who wore it.

In addition, those written rules and instructions also shed light on the unwritten norms of being a socially acceptable woman. Studying of the advice and instructions for making aprons highlight the expectations of social gender as well. An ideal woman with her apron was presumed to have sense of economy, sense of situation as well as sense of craft making and design (Figure 1).

Aprons did not completely lose their traditional symbolic meanings, but the meanings changed. In the studied period an apron was a symbol of a good housewife,

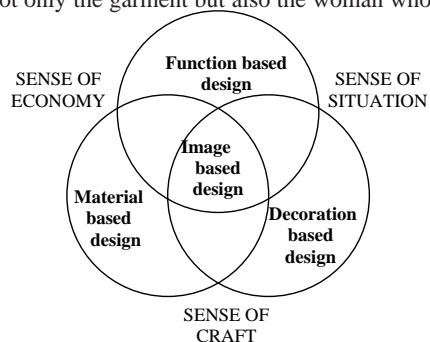


Fig. 1. Bases for design in making aprons.

a symbol of a woman who had economical talents in housekeeping, and a symbol of a woman who was attentive to her family. Again, with a new apron it was possible to make the outfit of an old dress look like a new one. The sentiment at that time was that a woman could change not only her own clothing, but also the whole atmosphere at home with a nice Sunday apron.

Clothing is an important part of human communication, and in social interaction individuals learn to interpret the messages of dress. People communicate through clothing about their person as well as about their place in society. Basically, clothing codes are highly context-dependent. In other words, clothing styles do not mean the same things to all the members of society and the meanings are varying depending on users, makers, occasions, time and place. Furthermore, aprons were clothes in which symbolic meanings were bound in the context they appeared.

## References

- Douglas, Mary. 2000. Puhtaus ja Vaara. Tampere: Vastapaino.
- Elenius, Edvard. 1913. Koristesommittelu. Kansanvalistusseuran käsiteollisuuskirjasto N:o 11. Helsinki: Kansanvalistusseura.
- Flugel, J.C. 1971. The Psychology of Clothes. Fifth. edition. (First Published 1930) London: The Hogarth Press and the Institute of Psycho-Analysis.
- Gestrin, Hilja & Somersalo, Eva. 1934: Esiliina. Porvoo – Helsinki: WSOY.
- Helsti, Hilikka. 2000. Kotisynnytysten aikaan. Helsinki: SKS.
- Kotiliesi- magazines 1943/11; 1943/17; 1945/8; 1945/11; 1949/11.
- Nirvi, R.E. 1955. Sanoja ja käyttäytymistä. Sanahistoriallisia tutkimuksia I. Helsinki: SKS.
- Nissinen, Aino. 1929. Kirjonta. Teoksessa Nissinen, Aino (toim.) Kaunis käsityö. Porvoo: Werner Söderström osakeyhtiö.
- Sipilä, Outi. 2006. Arkipäivän kansansivistystä - siisti esiliina ja taitavat kädet hyvän naisen merkkeinä. Teoksessa Marja-Liisa Julkunen (toim.) Tutkimuksia yhtenäistyvistä ja erilaistuvista oppimisen ja koulutuksen poluista. Kasvatustieteiden tiedekunnan tutkimuksia 98. Joensuu: Joensuun yliopisto.
- Sirelius, U.T. 1916. Suomen kansanpukujen historia. Helsinki: Suomalais-Ugrilainen Seura.
- Törnudd, Lilli. 1917. Uusi käsitöiden oppikirja.. Jyväskylä: K.J. Gummerrus Osakeyhtiö.
- Wikman, K. R. 1915. Byxorna, kjolen och förklädet. Et bidrag till Frågan om klädedräktens magi. Hembygden 1.

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## A NEW WORLDVIEW FOR CRAFT EDUCATION IN THE 21<sup>ST</sup> CENTURY

### abstract

*This paper argues that the emphasis in craft education has shifted philosophically with different worldviews from a sensuous exploration of materials and embodied experience (philosophical naturalism) of the medieval guilds to the Romanticism of the Arts & Crafts movement (subjective idealism) and an art school education that was concerned with the expression of the human spirit. Through historical analysis therefore we can see that the nature of reason itself has become fragmented. The project of Romanticism that ushered in the Arts & Crafts movement however also rejected reason and some have suggested that this was its major failing. One of the challenges for craft education in the 21<sup>st</sup> Century therefore is an epistemological one - to address the nature of reason. Within the University academy 'Reason' is interpreted in a narrow sense as the power of the mind to think and form judgements. Craft however is concerned with a holistic form of reasoning where fully actualized human beings combine embodied experience with the unity of thinking and doing. It is interesting to note that this expanded concept of reason is central to other disciplines in the university academy that advocate a craft approach e.g. the craft of archaeology. An expanded concept of reason and therefore a new worldview for craft education in the 21<sup>st</sup> century is proposed through reference to contemporary writing on craft and the philosophy of Dilthey, Goethe, and Jaspers.*

**keywords:** craft education, epistemology, reason, philosophy, worldview.

### Introduction

Craft subjects are on the endangered lists of many higher education institutions in the UK and so there is clearly a need to put up a strong rationale to justify Crafts continuing relevance in the academy. This paper represents my attempt to understand how we got into our present position in the UK and suggest to a future direction. The title of a paper is always crucial and I could have also titled it the *reason* for craft, reason in terms of providing a rationale for craft and the idea of *reason* as a philosophical concept or a way of thinking. I have approached this subject by exploring three interrelated threads through the different historical trajectories that both knowledge and practice have taken. The first thread is an exploration of the worldview (or the way the world is perceived). The second thread is a description of the educational and institutional systems that sanction and ensure these worldviews are maintained. The third thread is an analysis of the philosophical shifts in our thinking that have led to our current position. The consideration of worldview is important as Naugle (2002) argues it affects reasoning and interpreting in significant ways and so has a considerable influence over our epistemology.

Epistemology is a term that was introduced by the Scottish Philosopher James Fredrick Ferrier (1808 – 1864) (Craig 1998: 633) meaning the nature, methods, limitations and validity of knowledge. By exploring these three interrelated threads then we can examine the dominant *epistemology* of the academy

and consider what type of *epistemology* is not only desirable but ultimately essential for our discipline if we are to continue to make an effective contribution to shaping the culture of the 21<sup>st</sup> Century.

Ultimately what this paper argues is that we need to address the nature of reason within the discipline of Craft and develop our own epistemology. That epistemology needs to be robust.

### **Medieval period**

The American scholar Pamela Smith (2004) has argued effectively that you have to go as far back as the medieval period (440AD – 1450AD) to a time when there was no separation between practice and knowledge. The worldview at this time was a belief in the four basic elements of air, fire, water and earth and these beliefs influenced the practice of artists and craftspeople or artisans. The four elements were considered both internal and external to the body - so using the body to engage with materials was the key way to understanding the world and gaining knowledge of the world.

Smith (2004) draws on the examples of artisans such as Durer and Jamnitzer who claimed that nature was the primary source of knowledge and ‘that certain knowledge can be extracted by engaging with nature, and that this engagement takes place through a bodily encounter with matter’. The German philosopher Dilthey (Kluback & Weinbaum 1957) describes this as a type of philosophical naturalism.

Artisanal knowledge called for close observation of natural objects where knowledge was gained through the senses and by using the hands. Even the invention of techniques and processes paralleled the behavior of materials in order to fathom them conceptually. Consequently the craftsman gained both the knowledge of the world through their engagement with the basic elements of the universe as well as the hand skills to imitate nature and animate matter.

Smith draws upon the example of a Jamnitzer Pen Case (p.74 – 75) that achieved an exact imitation of nature by casting from life. This involved capturing a live animal such as a frog, killing it and then soaking it in vinegar and urine so it would not become deformed. As well as imitating nature - artisans were also concerned with harnessing the creative power of nature herself, the idea that craft processes themselves paralleled those of nature, so it was knowledge of both how to create and how to transform.

Smith’s (2004) main hypothesis is that it was this kind of knowledge that led to the creation of the University academy. Around this time developments in astronomy, philosophy and the scientific method led to a significant change in worldview. Late seventeenth century philosophers were unsettled by the involvement of the body in cognition and so they sought to control the bodily dimension and at the same time distance themselves from artisans and practitioners. Philosophers at this time for example Descartes who famously said ‘I think therefore I am’ created a dualism between mind and body. This new philosophy became institutionalised into the university academy (approx 1650) and divorced from the practitioners. Intellectual knowledge became superior to practical knowledge. According to Dilthey this is still a type of naturalism, although a mechanistic form as it is concerned with mechanistic explanations of the world.

So in terms of epistemology it was at this point when the University Academy was created that the making of knowledge became separate from the making of objects. Effectively theory becomes divorced from practice and the parallel educational institutions reinforce these differences: the University system being concerned with mechanical explanations and objective reasoning through the power of the intellect and the guild system ensuring quality standards in the production of objects. Within the academies then reason – as in the ability of the mind to think and form judgements is superior. The guild system continued in parallel alongside the new academies until the early 17th century and until a new worldview would shift things again.

## Arts and crafts movement

It was the German Romantic philosophers who ushered in a new worldview that influenced key figures associated with the Arts & Crafts movement such as Ruskin & Morris. Their subjective idealism was concerned with reconnecting us with the world, reanimating the world, but was different from the medieval worldview.

It is important to emphasise that the organic theory of nature developed by the German Romantics was to directly counteract the growing Mechanistic worldview of the European academies. Goethe in particular believed that it was possible to do a different kind of science from that of Newton and in his theory of colour suggested that the phenomena is its own theory. Goethe's theory of colour was appreciated more by artists than scientists as evidenced by J.M.W. Turner's painting - *Light and Colour (Goethe's Theory): The Morning after the Deluge - Moses Writing the Book of Genesis* in 1843.

A few historical writers have highlighted how Ruskin and Morris were indirectly influenced by the German Romantics through Thomas Carlyle who acted as one of the main vehicles in Britain for the introduction of German thought in his translation of, for example, Goethe's *Wilhelm Meisters Apprenticeship*. Goethe uses the novel as a vehicle to present his theories and reflections on art and in particular champion his ideas on *Bildung* (meaning education and the development of the whole human being). Carlyle in his description of Goethe at the start of the translation in a footnote, describes how *Wanderjahre* denotes the period in which a German artisan is, by law or usage, obliged to pass in travelling, to perfect himself in his craft, after the conclusion of his *Lehrjahre* (Apprenticeship), and before his Mastership can begin. (Carlyle, 1899:32) Now it was in this book that Goethe first warns about the spread of the machine - however this was probably conceived as a metaphor for the spread of the philosophical concept of mechanism into all aspects of life, rather than a warning against the spread of the machine itself *per se*.

It is easy to forget that Arts & Crafts started off as an architectural movement, and the belief that the spirit or expressiveness of a building should be reflected in both the interior and exterior of the building! Red House, Morris's marital home that was designed by Philip Webb as part of the Gothic revival exemplifies this. The Medieval Gothic style was considered by Goethe as the perfect example of how the work of art communicated the creative spirit of the people who made it. "Morris himself was delighted with what he saw as the Medieval spirit of the house. " (Henderson, 1950: 186) Morris and his friends who eventually went on to form the interior design business Morris Marshall Falkener & Company furnished Red House. Interestingly, John Houston (1988) suggested that the Crafts movement is what you have left after the architects have defected!

Contemporary writer on the Crafts, Alan Powers (2000) elucidates how the Arts & Crafts movement was a "... romantic resistance to the domination of rationalist thought." He describes how the movement was concerned with not only uniting art and craft but also man and God and man and nature. The Arts & Crafts movement also ensured that craft subjects were introduced in Arts Schools as they sought to dissolve any hierarchies between art & craft. So art schools became the focus for the education of artistic self-expression - expression of the spirit.

Key figures such as Morris and Ruskin thought they were seeking to return to the medieval period when, what they actually ushered in, was something completely different to what had gone on before. So the Arts & Crafts Movement is less of an extension of the medieval trajectory than a new one entirely.

Some philosophers such as Mathews (2003) draw attention to a major failing of romanticism, namely its rejection of reason. She suggests that in accepting the dualism of mind and body and merely attempting to

reverse the values assigned to each was a significant shortcoming of Romanticism. She calls for a complete rethinking of this oppositional structure.

“Whereas Romantic thought had the partial success in resolving Cartesian dualism at a metaphysical level, by putting mind back into matter, it preserved such dualism at the epistemological level, by simply rejecting reason.” (Mathews, 2003: 174)

With Ruskin and Morris, Arts & Crafts became a discourse, and although this has become an important feature of the discipline many practitioners choose not to engage with it or with critical thinking perhaps because of this separation between the making of knowledge and the making of objects.

### Contemporary practice

If we now jump a hundred years to the position where we are now (I’m obviously leaving out great swathes of history here - modernism in particular, however I feel its important to focus on those shifts in worldview that also brought about a shift in the Education system) where a few (three to date, including Dundee in Scotland and Goldsmiths in London) art schools in the UK have become part of the university academy.

As the discipline of Craft is a relative newcomer to the Academy we have never had to articulate ourselves in terms of our knowledge or epistemology - so we have no agreed definition of the nature, method or validity of our own knowledge. Mike Press (Malins, Press & McKillop, 2004) has said in the past that the best contributions to our understanding of craft come from outside the cosy, cloistered world of craft itself and in this case the same applies. If we look to other practice based professions who have been in the academy longer than us, what do they say about the type of *reason* associated with Craft as a practice? Mike Shanks and Randall McGuire (1996) speaking about the craft of archeology suggests “Craft is holistic...and avoids a separation of reasoning from the execution of a task... Craft involves an immediate and practical unity of the intellectual or cognitive and the emotive or expressive.” For these archaeologists, theoretically informed practice is simply being reflective, applying critique (aesthetic, philosophical, ethical, political, ideological, style whatever) to the practice at hand.” (p. 78)

If we look at another practice-based discipline, namely that of Occupational Therapy what do they say about the type of reason associated with craft?

“Practice skills ... balance different domains of professional craft knowledge in the unique care of each patient and to manage the fine interplay between intuition, practical reasoning and rational reasoning and between different kinds of practice knowledge... professional artistry enables the practitioner to use the whole self therapeutically: to bring self into the professional role.” Higgs & Titchen (2001)

This is not unlike the description of *reason* that Karl Jaspers (as discussed in Verbeek, 2005: 41 – 42) made when he was writing about the relationship between human beings and technology. Jaspers called for ‘a reversal of thinking in which intellectual thinking is transformed into reason - a way of thinking in which human beings are actually thinking as themselves’. When we are truly ourselves then we can take responsibility for the situations we find ourselves in and our actions.



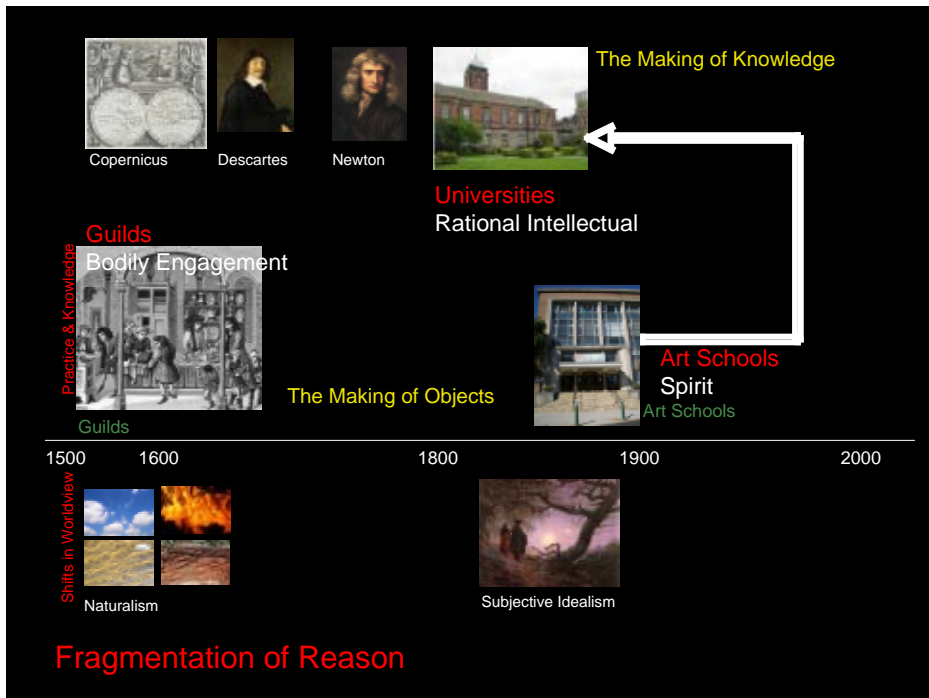


Fig. 1 Timeline of the Fragmentation of Reason

So, in summary then, I have argued that the very concept of reason itself has become fragmented, where the Guilds were concerned with bodily engagement, the university academies concerned with the rational intellectual dimension and art schools concerned with the spirit and self-expression. In some respects it could be argued that it is this fragmentation of reason that has led to the unsustainable situation that we find ourselves in now where the rational intellectual has become separated from our inner most feelings and ethical sense. Similarly contemporary Craft is isolated and stands accused of being stuck in an aesthetic and sentimental cul de sac (Perry, 2005).

There is however a growing sense that we are on the brink of a new worldview. Holistic science is a relatively new discipline with a small but growing number of scientists working in this area. The work of Frijof Capra, Brian Goodwin, James Lovelock, Christian de Quinicy, Janine Benyus, David Abram, Rupert Sheldrake and Henri Bortoft finds synergy with the new sciences of chaos and complexity theory, of wholes and emergent properties, fractals, systems and networks. Craft also has much more in common with contemporary holistic scientists that are at the forefront of this shift in worldview than it may have with other members of the academy. What we need then for a new sustainable worldview is a different kind of epistemology and a new University model – one that is concerned with bringing our whole self to address contemporary life. This represents neither a backwards return to a naturalistic or idealist philosophy but rather a move forward to a more holistic integrated epistemology; fully actualized human beings combining embodied experience with the unity of thinking and doing. Matthews (2003: 174) suggests this non-dualistic form of reason would be ‘... guided by the heart and grounded in the findings of direct experience but refined through critical reflection’. With Craft as active members of the University Academy we have an opportunity to make this new worldview and its accompanying epistemology a reality.



## References

- Carlyle, Thomas. Trans. (1899). *Wilhelm Meister's Apprenticeship and Travels*. Translated from the German of Goethe. Book 1. London: Chapman and Hall Limited.
- Craig, Edward. (1998) *Routledge Encyclopedia of Philosophy*. Volume 3. London: Routledge.
- Henderson, P. Ed. (1950). *The Letters of William Morris to his Family & Friends*. London: Longmans Green.
- Higgs, J. & Titchen, A. (2001). Rethinking the Practice-Knowledge, Interface in an Uncertain World: a Model for Practice Development. *British Journal of Occupational Therapy*. 64(11) p526-533.
- Houston, John (1988). Ed. *Craft Classics Since the 1940's. An Anthology of Belief and Comment*. London: Crafts Council.
- Kluback, William and Weinbaum, Martin (1957). *Dilthey's Philosophy of Existence: Introduction to Weltanschauungslehre. Translation of an essay with Introduction*. London: Vision Press Ltd.
- Malins, Julian, Press, Mike & McKillop, Chris. (2004) *Developing a Sustainable Model for Future Craft Education*. Challenging Craft Conference Aberdeen.
- Mathews, Freya. (2003). *For Love of Matter: A Contemporary Panpsychism*. New York: State University of New York Press.
- <http://www2.rgu.ac.uk/challengingcraft/ChallengingCraft/papers/malinspressmckillop/jmalinsabstract.htm> accessed on May 2008.
- Perry, Grayson. (2005) A refuge for Artists who Play it Safe. *Guardian*: <http://www.guardian.co.uk/artanddesign/2005/mar/05/art> accessed on August 2008.
- Shanks, Michael and McGuire Randall H. (1996) The Craft of Archaeology. *American Antiquity*, Vol. 61, No. 1 (Jan., 1996), pp.75 – 88. Society for American Archaeology.
- Smith, P. (2004) *The Body of the Artisan: Art and Experience in the Scientific Revolution*. Chicago: University of Chicago Press.
- Verbeek, Peter-Paul. (2005). *What Things Do. Philosophical Reflections on Technology, Agency, and Design*. Pennsylvania: Penn State Press.

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## COLLABORATIVE PRACTICES – THE ALLIANCE OF CRAFT, SCIENCE AND INDUSTRY THROUGH PRACTICE BASED RESEARCH INTO THE COLOURATION OF PEWTER.

### abstract

*Craft practices readily and regularly engage across diverse disciplines, forcing a complex and often confusing integration of processes and languages. Our practice changes according to the demands made upon it – ultimately reflective, flexible, adaptive and responsive. In turn the roles we take on as practitioners also change. This paper highlights the value of collaborative approaches to craft, the positive dialogue that can exist between industry and the craft practitioner and the impact of that relationship on design decisions. Drawing on the experiences of the researcher through her investigations into the development of a range of colouring processes for pewter it will examine the alliance of Craft, Science and Industry, in this instance ITRI Ltd, the pewter manufacturing industry and the maker - researcher. A methodology that supports exploration of the aesthetic and expressive through nurturing a practice of “risk” and the linear, science based practice of certainty through elimination is also discussed.*

**keywords:** collaboration, craft, industry, science, design

### Introduction

This paper draws on personal experiences during investigations into the development of a range of colouring processes for tin and pewter that highlight a positive alliance of Craft, Science and Industry through collaborative partnership – in this instance The International Tin Research Institute (ITRI Ltd), the international Tin industry and myself as maker/researcher. Craft often works hand in hand with industry and industrial practices but the value and impact of this relationship has attracted limited discussion in recent years. It is the intention therefore to consider the value of such collaborative approaches, the positive dialogue that can exist between industry and the craft practitioner and the impact of that relationship on design decisions.

Examples of this relationship include the Hi Tec – Lo Tec project initiated by the Devon Guild of Craftsmen (Andrews et al, 2000) whereby craft practitioners, including textiles artist Janet Stoye and ceramicist Tim Andrews, worked alongside industry with an intention to exploit the potential of new technologies and materials and realise new works and products. More recently the relationship between craft and digital approaches to manufacture has also been highlighted.

My collaborative experience emanates from current research into the patination of tin and pewter and considerations for the commercial development of research outcomes through the making of new products. The colouration of metal has a long and well documented history which reaches as far back as the Bronze Age, however, the colouration of tin and pewter has not been widely exploited by industry or artists, unlike the patination of copper and copper based alloys. Where colour is evident on pewter work, it tends to be

applied rather than inherent to the material. The use of tinted lacquers is the most common means of applying colour, seen in 16<sup>th</sup> century Dutch ware; oriental pewter and more currently Yasserman Tazerbahar's painted noodle dishes (2002) produced by Wentworth the Pewterers of Sheffield, UK. Additionally, Anthony North (1999) in his publication on historical pewterware, discusses tales of the existence of a 16<sup>th</sup> Century German pewter smith who could turn his pewter to gold and a golden patina described as "nature's gilding". Within the Victoria and Albert Museum, London, there exists an 18<sup>th</sup> Century cast dish (dated circa 1702 – 20) with indications of this golden lustre on parts of the surface.

Other sources of analysis of pewter corrosion and therefore surface colouration have been recorded of pewter artefacts found in shipwrecks (Dunkle, Craig, Rimstidt & Lusardi, 2003). These objects display a white encrustation, possibly tin oxide forming as a result of salt corrosion. Such instances of natural surface oxidation and my own experiments into the working properties of pewter have provided the rationale for the project.

Another motivation for the research is that, within the crafts, tin and its' alloy pewter have been considered relatively inert and dirty metals and therefore often ignored by metal craft practitioners. The metals are generally not prone to corrosion and therefore oxidation, making patination difficult. However when the metal is heated, occasionally, the surface reveals a blue/ mauve tint that occurs just as the surface begins to melt. This phenomenon provides a strong indication that oxidation has taken place. If a metal oxidises, generally the colours produced naturally can be achieved by applied methods.

The investigation and possible exploitation of this phenomenon implies that research into defining, refining and applying new and evolved processes and techniques could offer a novel aesthetic for what is often considered a bland material. Often the most innovative of contemporary designs rely on purity of form with scant consideration of surface quality beyond embossed pattern and a high polish. The question raised is; whilst the lustre of pewter can be attractive, could the surfaced quality also become intriguing? There is also the possibility that processes could be exploited for wider commercial use, potentially expanding the market appeal of the metal, particularly within the jewellery and giftware industry.

### **Collaborative practice**

The type of colouring processes under exploration and the questions asked of the research, intimated, during the early stages, a need to collaborate with the Science community to gain expertise on the characteristics of the material under scrutiny and the best methods for controlling the techniques and processes involved, as well consideration for viable application within the industry and one's own practice. This also included advice on any economic and ecological issues that may arise from the process and potential industrial use of realised processes. In this instance ITRI Ltd (formerly the International Tin Research Institute) based in St Albans, UK, has been the major collaborating body. ITRI Ltd is the prime research centre for the global Tin industry. Their collaboration has allowed access not only to the vast chemical expertise within the centre but also the resources that have supported the testing of processes under laboratory conditions, providing a sound environment and validity to the data collected. The initial workshop based results were often inconsistent and difficult to control.

Access to ITRI Ltd has allowed the refining of those "brews" and processes and a large number of experiments have been conducted and analysed, culminating in the establishment of a repeatable and stable colouring process ripe for exploitation. A consistent, even gold colour can be regularly achieved as well as a blue green finish. Other results produce aesthetically pleasing variegated pinks and purples. Their application can now be managed in a specified manner, controlling a desired effect. It is no longer an ad hoc

aesthetic.

The feasibility of such repetition and uniformity has indicated the potential for wider commercial use of the process and ITRI Ltd have presented vital links with the global tin and pewter industry allowing results to date to be analysed in the context of new commercial possibilities beyond the traditional realms of craft - the one off. Additionally, access to laboratory resources has provided opportunities to advance design ideas. An example is imagery taken with high level magnification equipment of the metal's surface structure which has provided the primary visual resource for development of surface patterns that enhance the effects of colouration (Fig 1).



Fig. 1 Metal surface structure in high level of magnification to enhance surface patterns of colouration effects.

In terms of design decisions, the collaborative links forged throughout this research project have enabled a positive dialogue on the development of appropriate and marketable products that meet the needs of the industry and expand the market. Considerations of the efficacy of production and methods that limit the stages of manufacture for batch and mass production, through the reduction of a design's component parts can be a challenge for the creator of the one off piece. One such project was the development of designs for a simple range of tableware in collaboration with Wentworth of Sheffield, UK. This venture provided not only an opportunity to test colouring process in the factory, under factory conditions but also the adaptation of designs to marry with the manufacturing techniques employed by the company.

Designs are now evolving that consider not only the manufacturing processes employed by industry that support economy of production but also product ranges that promote a new aesthetic and potentially a new customer profile that will help sustain the industry.

Current concepts revolve around designs for jewellery that can be manufactured using the simple batch production processes such as stamping, embossing and folding. More complex construction methods that require soldered parts would increase production costs and affect commercial viability of the end product. Design considerations for pewter jewellery explore an area currently under exploited.

Most jewellery in the pewter market is reminiscent of traditional design styles such as Celtic and Art Nouveau and any use of secondary colour tends to be applied through cold painted enamels or use of semi precious gems, mimicking designs from the precious jewellery market. More contemporary designs could add a new aesthetic to the metal as well as appeal to a wider market.

## Research methodology

The project bridges the boundaries of science, craft and design. It could be possible that a sense of friction of practices exists between the design-craft element of the research, that is the intuitive based material

exploration in the workshop that explores the aesthetic and expressive through nurturing a practice of “risk”, and the more linear science based practice of certainty through elimination. This was highlighted in early discussions with ITRI Ltd regarding the direction of required experiments and the methodologies employed. However, as a maker, it has been important that the research is based in workshop practice (that is craft practice, the tacit hands on manipulation of materials and techniques that inform one’s creative practice) and also that the creative element remains central to research aims. Therefore it was important to set out those creative aims early on. It would be very easy for a fascination with the science element to override the creative aspects of the project, with each collaborating party setting their own agendas based on individual interests and perceived potential for the outcomes.

Also highlighted was the need to develop a research model that allows creative decision making to occur within a flexible framework that incorporates diverse methodologies through an integration of practices. In other words the logical linear based methods of the laboratory needed to gel with the more lateral and sometimes intuitive approach of creative practice. The ‘maker-researcher’ model is key to this framework of practice (fig 2).

In this model, the maker-researcher, acting as project manager, is central to the activity and able to make decisions on the structure and range of experiments and their analysis in the context of the maker-researcher’s practice and project aims. The needs of the maker, as practitioner and researcher, both defines the nature of the quantitative research, in this instance the laboratory research, and is informed by the results. This in turn has allowed any decisions to be made in relation to the project’s creative aims. The maker-researcher is able to interpret the results in terms of their relevance and appropriateness to the production of objects and acts as a conduit for dialogue, setting the research within a workshop context. *‘By accepting tacit, hands-on qualitative information alongside the quantifiable data it is possible to gain a clearer picture from the research.’* (Horne and Ferguson p.6 online 11/10/2005). The model also takes into account any established dialogue between industry and other collaborative partners, in this instance the science research community, which may further inform creative decisions and research path.

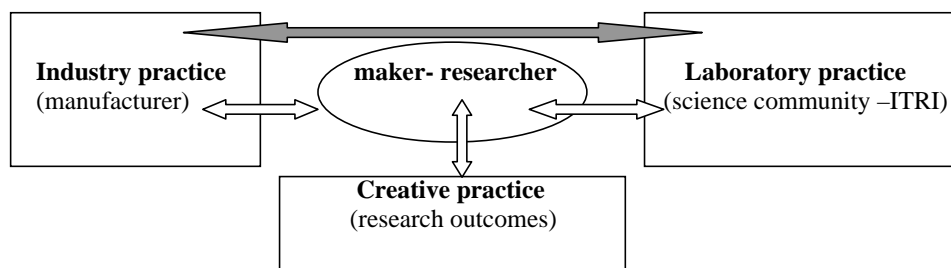


Fig. 2 The maker-researcher model

The somewhat ‘kitchen sink’ approach to the colouring process within a craft workshop has often been at odds with the need to apply a consistent mode of action that reduces the many variables in the testing method, clouding judgement on cause and effect. The rigour of a science based model for research defines what is happening and potentially supports the development of a viable process that allows replication. The more one understands what is happening, the more one can control its occurrence.

As a doctoral project, it has also been important that the research be set within a theoretical context that both supports and validates craft practice. In this instance the theory that supports the practice elements of

the research is informed by models established by Frayling (1993) and Schon (1983). The research method employed is based on the action research models outlined by Frayling (1993); “Research through Art and Design” and “Research for Art and Design” - whereby the thinking is communicated through an artefact or body of practical work. Relevant aspects of Frayling’s approaches to Art and Design research are further redefined by Horne and Ferguson (online 11/10/2005) within their collaborative research paper outlining theoretical model used for a project into the application of solid state fusion techniques in knife making, as ‘Research through Craft’ and ‘Research for Craft’. The method established by Horne and Ferguson also incorporates opportunities for reflective practice based on Schon (1983).

The model was seen as appropriate for this investigation and has been adapted to better reflect the project structure (Fig 3). The development of a conscious theoretical framework that supports and underpins the creative processes inherent in “intelligent making”, serves to both clarify and sustain practice and could provide useful models for further practice led research within Craft.

Frayling’s ‘research through art and design’ has been used to establish the colouring properties of the material through testing a range of compounds, allowing decisions to be made in response to the results and data gathered. Frayling’s ‘Research for art and design’ model allows for the creative experiment and application of successful processes through workshop practice and design development, informed by evaluation of the material’s working properties. At the same time, reflective practice can be identified through the application of both Schon’s “hypothesis testing” which allows for an absolute end result, as with generally accepted science based models (i.e. establishment of quantitative data), and the more experimental, tactile, intuitive action described as “exploratory testing” (qualitative data). The model established allows for aspects of the research to be revisited and re-evaluated during the creative workshop phase of the project.

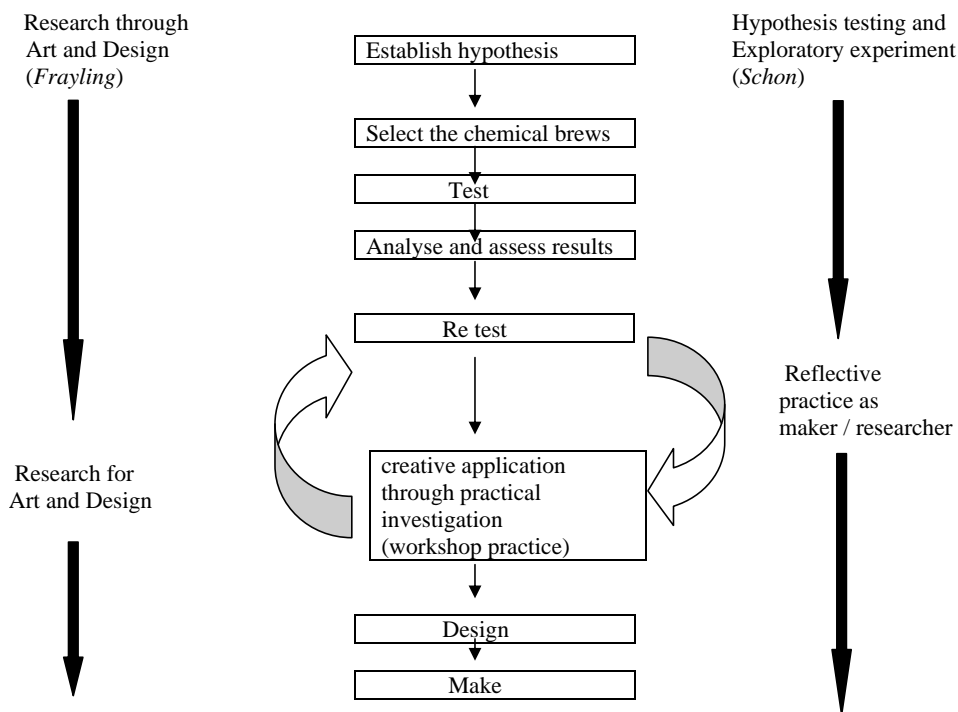


Fig. 3 Research model based on Horne and Ferguson (2005)

## Conclusions

Strong collaborative links have been imperative to the success of this project - without it the potential for what is a new technology could not be realised. As a craft practitioner, the researcher has moved into the realms of chemistry and manufacturing, adapting and extending personal practice, taking from and learning from other processes and practices that have helped extend the potential of personal concepts.

The results of this collaboration have provided the basis for further research and have set in motion a positive dialogue between the maker-researcher, realising and testing ideas in the workshop for the making of new products; the science community, providing comprehension of the colouring process and the resources to improve reliability and validity of defined processes and the manufacturer in adapting processes to harmonise with industrial practices. Through this project the potential for craft practice to support and inform the wider industrial and manufacturing industries has been made evident.

The collaboration with ITRI Ltd has ensured reliability and provided credibility for the research outcomes, in turn allowing a dialogue with industry that enables the future development of new commercial products. It has enabled the maker-researcher to understand the complexities of the processes that are evolving and in doing so, better understand the requirements of industry in order to provide it with a new technology. This is supported by Dr Ian McGill, Head of Research at ITRI Ltd, who states; “The key to exploitation of any new technology is to understand the mechanisms by which the technology works, and it has been the role of ITRI to assist in establishing the chemistry of surface phenomena which leads to colouration of pewter. Any commercial application does require process reproducibility and practitioners and industrialists do require this in order to manufacture and market new product.”

The activity has highlighted the importance of clarity of communication when engaged in partnership based projects. The parameters and expectations of the research need to be clearly set alongside an agreed understanding of time span, roles, responsibilities and most importantly, ownership. There also needs to be a certain amount of flexibility that enables parties to respond to unexpected outcomes that could instigate further research activity and the potential for longer term relations. All this requires a positive attitude from collaborating parties.

As a craft practitioner, the research project continues to push the limits of one's own practice through reinforcement and expansion of material knowledge and creative endeavour as well as an increased appreciation and awareness of the wider implications of the impact of craft practice and its outcomes on industry and design culture. Innovative responses to new materials and technologies in turn influence design culture and style and ultimately the mass production market.

Craft practice readily and regularly engage across diverse disciplines, forcing a complex and often confusing integration of processes and languages, difficult to unravel. This collaborative project has emphasised the heterogeneity of craft practice and its ability to adapt to varied outcomes, reflective and flexible in its approach to design problems. Our practice changes according to the demands made upon it. In turn the roles we take on as practitioners also change – craftsman; artist; designer; scientist; metallurgist; maker? “There's been a seismic change. I remember when people had to declare – like some ancient guild system – what their trade was: industrial designer; craftsman; artist. But now people don't stay in their boxes.” (Moss in Fairs 2007 pg. 41)

The research has also opened up unexpected avenues of collaboration with the Tin industry, across a much wider territory, developing applications for completely different markets – for example the angling industry - highlighting the impact craft practice can have on developing new technologies and applications.



By better understanding the properties of the material in which we work, and the fundamental aspects of the processes we are developing, we become not only more aware of the potential for craft on the commercial world but also the means by which we may exploit that potential. This project has also accented the importance of Tin to everyday products and therefore realised the enormity of the Tin industry, the material and its impact on the global economy. Mostly it has realised the potential for the results of one's creative endeavours, through experimenting and exploiting materials and processes in the workshop, on the wider community. It has taken the craftsman out the recognised boundaries of practice and isolation of the workshop into a dynamic and rapid changing industrial arena, advancing perceptions and realisation of the exciting and valuable position Craft can hold in the future of technological and material advancement.

## References

- Andrews, T et al (2000) *Hitec – Lotec*. Cirencester, Crafts for Now
- Dunkle, S.E Craig, J.R, Rimstidt, J.D & Lusardi, W.R. (2003) *Romarchite, Hydromarchite and Abhurite Formed During the Corrosion of Pewter Artifacts From the Queens Anne's Revenge(1718)*. The Canadian Mineralogist, vol.41, pp. 659 – 669.
- Fairs, M (2007) *Burning Down the Divide*. in Crafts, issue no.205, march/ April 2007 pp. 41
- Frayling, C. (circa 1993) *Research in Art and Design*. RCA Research Papers, vol 1, no. 1
- Horne, G & Ferguson, I. (unknown) *Making Sense: The value of making as a research methodology with reference to the development of solid state diffusion bonded Damascus steel*. (online) [www.ub.es/5ead/pdf/hornefer.pdf](http://www.ub.es/5ead/pdf/hornefer.pdf), accessed 11/10/2005.
- North, A. (1999) *Pewter at the Victoria and Albert Museum*. London, V&A Publications.
- Shon D. (1983) *The Reflective Practitioner: How professionals think in action*. Basic Books.







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## COMMUNICATION AND LEARNING IN SLOYD PRACTISES – A RESEARCH PROJECT

### abstract

*This article describes in short the point of departure for an extensive research project on Sloyd and the four subprojects within the project. In the latter part of the article, some of the outcomes of the research work are presented such as textile knowledge related to liberal or vocational studies; sloyd teacher education; evaluation, feed back and assessment, Sloyd classroom studies, curriculum studies; history of the Sloyd subject and finally theoretical perspectives. Further results generated from the project will be presented in a near future.*

**keywords:** *Sloyd [slöjd] subject, vocational education, socio-cultural theory, critique, assessment, aesthetic processes, sloyd teachers' ideology*

Sloyd [Sw. slöjd] as a school subject in Swedish schools has a long history, more than 125 years, but at academic level the history of teaching and researching is much shorter. The first extensive research project was *The school and the subject sloyd* with the subtitle *Laborative sloyd*. The main focus was to study the so called “sloyd process” and what actually happens during the sloyd lessons, especially in primary schools. 25 years passed until the project *Communication and Learning in Sloyd Practises* was supported by the Swedish Research Council's Committee for Educational Science from 2004 to 2008. This project, has now come to the end of the calculated time. Following article will give a background to the project and some glimpses of the outcomes, for more information, please check the homepage ([www.komolar.se](http://www.komolar.se)).

The general aim was to contribute to an increased understanding in teaching and learning in sloyd [sw. slöjd] and handicraft by exploring sloyd practises within the formal education system. By using the concept “communication” the intention was to emphasize the importance of the context in which interaction, teaching and learning takes place. The issue was communication in and about sloyd, its content and traditions, how knowledge is valued in different educational settings, and the artefacts used within sloyd education. By using the term sloyd practices we wanted to stress that sloyd in schools can be regarded as a practice in a socio-cultural sense (Säljö, 2000; Johansson, 2002). The social and physical learning culture is perceived, from this point of view, not as external factors influencing the individual's understanding and actions. The individual's understanding and actions are always part of a context, which they help to create and recreate. Learning sloyd is situated in social practices. All conditions that affect interaction and learning in sloyd classrooms were of interest in the project. These included not just the methods teachers use to further learning but also the circumstances, which affect the students' communication with and influence on each other. The outlook pays attention not just to the knowledge and skills that pupils acquire in sloyd but also what the pupils really learn by learning something in sloyd. This metacognitive knowledge is a result of experiences and awareness of the situations and social practices in which the knowledge is useful. Understanding of the school subject sloyd as social practice particular in this perspective, facilitates comparisons with sloyd-related practices outside school (Lindström, 2001).

The project team

The project was conducted as collaboration between the Universities in Stockholm, Gothenburg and Umeå. The members of the project team have contributed to the project in different ways. Professor Lars Lindström, Stockholm University has been the scientific overall supervisor of the project and responsible for subproject four (see below), as well as supervising the two PhD students Anna Ekström and Peter Hasselskog. They will present their PhD thesis connected to the main theme in one to two years. The senior researchers, Kajsa Borg, Marlène Johansson and Viveca Lindberg have been responsible for the other three subprojects. The lecturer Oscar Lindwall, Gothenburg University has been involved in interaction analysis of video recordings. The researchers have cooperated in various ways and some studies overlap the themes of the subprojects.

### **What was planned?**

Because of the rather wide aim of the project, the research questions were specified in the description of four subprojects:

*Study 1: Sloyd in a changing world*, edited by Viveca Lindberg, Stockholm University

Research question: What kind of sloyd and craft related competence is in demand in society?

Our society is constantly changing. The same applies to the structure of the educational system both at university level as well as primary and secondary education. Another factor which changes is the relationship between the learning culture of school and learning cultures in society, which sometimes might be perceived as a conflict between personal development and social utility. This is one of the dilemmas that a study of sloyd can illuminate.

*Study 2: The learning qualities of sloyd*, edited by Kajsa Borg, Umeå University.

Research question: What learning qualities and other values do teachers, principals, and pupils think are furthered by good sloyd teaching?

The aim and content of sloyd have hitherto been expressed in official Swedish texts in an almost stereotyped way, without any prior problematization or investigation. We wanted to investigate what learning qualities sloyd education could achieve and actually did achieve. Other studies demonstrate significant differences in expected results, which can be explained by the teaching methods applied in teaching (Harland, 2000). We expected that differences of this kind could be found also in sloyd, where opinions differ as to how the craft object, the craft process, and other elements are to be evaluated.

*Study 3: Conditions for learning in sloyd practices*, edited by Marlène Johansson, Gothenburg University

Research question: What is the interaction between teacher's views of sloyd activities, the learning qualities that teachers value and aspire to in their sloyd teaching, and the learning environments that they offer to further such qualities?

Ritchart (2002) of Harvard Project Zero has shown that teachers' notions about what it means to think have a crucial influence not just on their way of planning their teaching but also on the extent to which they actually succeed in getting the pupils to think and reflect. His research is part of a cognitivist tradition. Looking at things from the theory of activity, it may be said that different teachers have different objectives for their teaching. They perceive their task differently depending on the learning tradition, which they espouse (Engeström, 1993). Because Sloyd classrooms are different from the ordinary classrooms, we

anticipated that it would be interesting to get to know more about if the organization of the sloyd classroom environment or the social norms and routines stimulate and maintain motivation and learning in a specific way. Whatever the theoretical perspective, it was important for us not just to look at what happens in the sloyd classroom but also to “take a step backwards” to reflect on the ideas and traditions that teachers and pupils bring along and which give the activities meaning.

*Study 4: Sloyd practices - theoretical perspectives*, edited by Lars Lindström, Stockholm University

Research question: How can communication and learning in sloyd practices be described and understood in a theoretical perspective, with elements borrowed from, e.g., motivation and creativity studies, epistemology, and socio-cultural theory?

Creating things from different materials is often perceived as pleasurable. However it cannot be taken for granted, that the actual “sloyd process” itself develops the pupils’ creative ability - or even makes them feel motivated. An extensive empirical study by Lindström, Ulriksson, and Elsner (1999) showed that art teachers often overestimated pupils’ creativity, which might be the case even for teachers in sloyd. That study generated a number of hypotheses about what characterize learning environments which promotes creativity, like assignments which are generative and extend over a lengthy period; teaching encourage active exploration and is carried on in such a way that the pupils are given ample opportunity to evaluate their own work and obtain responses from classmates and teachers (Lindström, 2002b). The study was expected to develop a theoretical frame of reference to describe and understand learning in sloyd. The outcome of the empirical studies was supposed to be used to modify the theoretical frame of reference.

## Methods

Beside the subprojects we also wanted to take the opportunity to develop and explore some research methods. Teachers’ learning traditions, aims, and ideas about how they might be achieved could be surveyed by means of qualitative interviews, collective remembering, Q Sort, Repertory Grids, Stimulated Recall, Critical Incidents, and similar methods. Learning environments was also to be studied through, e.g., field notes, assignment analysis, pupils’ and teachers’ diary notes, analysis of classroom language, tool-mediated activities and assignments in the sloyd classrooms. The empirical material collected by the members of the project contains some hundreds of hours of video recordings as well as photos, interviews, sound recordings, repertory grid interviews, and transcriptions of the collected material.

## Gender aspects

There are gender aspects, which need to be discussed in Sloyd education. Woodwork and metalwork in school were long reserved for boys, while girls had to learn textile sloyd. According to Berge (1992), this division was still applied to a large extent in the training of sloyd teachers in the beginning of the 1990ties. We wanted to know about the current situation because at the level of steering documents it has changed. Since there are only occasional classroom studies, we know very little about what boys and girls are given the opportunity to learn in sloyd lessons in comprehensive school. A Finnish study (Autio & Hansen, 2002) found statistically certain differences between what boys and girls learned. The researchers constructed a test to measure the effects of sloyd teaching in school. On the other hand, they did not study what boys and girls actually did in sloyd classes. In the different studies in this project we wanted to elucidate gender issues



in relation to pupils' learning in different educational contexts. We were also interested in investigating which learning situations male and female teachers create.

### **The outcome of our research – some examples**

I will here present some research results in some thematic combinations, which are not always the same as our initial sub projects.

In the project we wanted to cover sloyd activities in schools from early ages to upper secondary level. Even if Sloyd is *not* regarded as a preparation for vocational studies, we have in this project included *vocational education in secondary schools*, because of the assumed similarity with sloyd in teaching methods and learning activities. Another reason for this is that there is no other direct connection between the sloyd subject in the compulsory comprehensive school and the secondary school. In Sweden, basic vocational education has, since 1970, been an integrated part of upper secondary education. A reform in 1990s gave as a result three programmes with an academic profile and fourteen programmes with vocational profiles. In addition to these programmes there are possibilities to locally or regionally design programmes within the frames of the national programmes. As a result there are numerous combinations of programmes “hybrid programmes”. Lindberg (2006; 2007) studied two textile related programmes; one was a vocational fashion programme another was a hybrid programme based on social science with addition of dressmaking, in order to find out similarities and differences.

The interesting result shows that in spite of the similarities in the content of the two courses, there are several differences in what kind of textile knowledge the teachers wanted their pupils to acquire. The teachers also had different educational backgrounds, one of them was a vocational teacher and the other was a textile teacher. The classrooms were differently equipped, the teaching methods were different etc.. Lindberg (2007) asks, “Same syllabus, same task related to different syllabuses – same content? (s. 91). Through her studies, Lindberg brings out the question about the division between liberal and vocational studies; liberal studies were traditionally meant for personal development and vocational studies were the preparation for vocational job. Is it possible that the difference in tools and fabrics, contributes to the difference or is it because the students have more or less influence over what garment they make? Lindberg concludes that if we see the two programs as different activities (Leontjev, 1986) it seems like the motives and objectives of each activity define the way we use and characterize knowledge, rather than the tasks themselves.

The second topic of research has been *sloyd teacher education*. Borg (2007) has investigated the history of teacher education during the last 30 years. Many reforms have taken place during those years. All former Institutes of Teacher Education have been abolished and all teacher education is now on academic level at five universities. It is no longer possible to become a teacher in sloyd without also choosing another teaching subject. The length of studies is now at least four years, including school practice and examination thesis. The reforms have made all teacher education more equal especially because 30% of the time all students study same courses. On the other hand the time allocated for the specific sloyd knowledge has been reduced. Another consequence of the reforms is that the universities now are more independent, therefore the entrance requirements and content of sloyd studies differs from one university to another. Previously, those who became Sloyd teachers were mostly very eager Sloyd enthusiasts. Nowadays there are new categories of students studying Sloyd e.g. those, who choose Sloyd as a second alternative to combine with another first subject. There are also students without much Sloyd experience from their earlier schooling. Nowadays

the students are not restricted to select certain subject combinations. They can make their own choice and combine Sloyd/Art and Sloyd/Physical Education, which was not possible earlier.

Content wise the balance between, on the one hand the manual/aesthetic practise and on the other hand study and production of written texts, has changed from priority on the former to priority on the latter. Such change is quite natural following the academization of the teacher education, but another consequence seems to be that the academic working methods and ways of examining the students also have an impact on the Sloyd content in the courses. There are also severe problems to find teacher educators with good subject knowledge as well as keeping a PhD or at least MA exams. The academic structure does not quite fit Sloyd teachers competencies. To build a new scientific discipline takes quite a lot of time and effort and relevant research. As long as very little economic resources are directed towards the sloyd and craft field, it is very difficult to reach a decent scientific level.

On the other hand, even with small steps, the research-based knowledge about Sloyd has increased and provides information and inspiration for students. Because of the written academic BA grade papers, all students are now very much aware of what is known about the subject and what is not known. All reforms have been directed towards providing similar requirements and to create equal status for all teacher students, disregarding of what subject they are going to teach. The general parts of the teacher courses do make all students to become more professional on a general level, but looking at the consequences for the Sloyd education, there is a considerable risk that the education is more like a de-professionalization of the subject content knowledge.

The third area of topics for research has been *evaluation, feedback and assessment*. Lindströms earlier work (2001; 2002b) about how to distinguish between criteria for processes and criteria for products has been further elaborated and tried out other groups of sloyd teachers. Borg (2008b) did a series of repertory grid interviews in order to investigate the language and concepts used by teachers in Sloyd when they did their assessments. She found that there was a clear tendency that the teachers prefer, in the first hand, to assess the craft techniques, choice of material and problem solving, while the students work with elaborating their ideas, the aesthetic values of the object and the evaluation of the work seems to be “forgotten” or avoided. This result shows the problematic area for Sloyd teachers while Lindström (2006) argue that it is possible to evaluate and assess creativity in Visual Arts education.

Ekström (2008) has recorded several hours of video from examination situations in Sloyd teacher education. It is quite common that the students present their work as a small exhibition together with their classmates in critique sessions. Every student will get some time to explain what he/she has produced, why it became like it is and what type of dilemmas he/she has come across during the creative process. Ekström was interested in what aspects of students’ course work teacher educators focus during the critique sessions and in what ways they approach these aspects. She found a tendency where unspecified praise and hidden critique of students’ work dominated the evaluative aspects of teacher educators’ comments.

A fourth huge area, which is in need of different types of research activities is what happens in *the classroom for sloyd*. Johansson (2002; 2006) did the first study with a rich material of video recordings, which shows many different ways of communication between different actors, such as teachers and students and among students themselves. In line with a socio cultural perspective she also points out the importance of the mediating tools, which includes spoken and written language. Even the smallest tool used in textile working, the needle, is a carrier of knowledge. There are several different shapes and sizes of needles to select among depending on the material and the technique to be used, which means a lot of choices and decisions to make before getting started with the sewing (Johansson, 2008). Another aspect of her results shows how students in comprehensive school learn to understand what is meant by *soft enough* in metal work. Here the students’

interactions using tools on the copper material is guided by the teacher's communication and demonstration. Visual and tactile aspects in relation to the students' work with the material are guiding the learning (Illum & Johansson, in press). In subjects like sloyd, without any national examinations or generally used textbooks, the teaching and learning become very dependent on the teacher. *The teachers in Sloyd* are in focus for Hasselskog's PhD-project, which is not yet completed. Based on dairies from 60 teachers he has made a preliminary comparison between two teachers with different approaches to their teaching (Hasselskog, 2008a). Ekström and Lindwall (2008; and article in press) have been especially interested in the interaction between teachers and students, *how instructions are given and understood* especially how the instructions are transferred into student action. From what happens in school they want to draw parallels to working life.

In a research project like this, it is unavoidable to also do some *curriculum studies*. Hasselskog (2008b) has made a specific investigation about the frequent use of "Sloyd process" in the national syllabus. The lack of a common understanding and interpretation of such a central concept in Sloyd teaching can be a sign that further basic research is needed on the fundamental concepts used in educational sloyd. Some articles based on original historical documents about *the history and development of the Sloyd subject* has been done by Borg (2006; 2008a). Going beyond the limits of the sloyd subject, Lindström (2008c) draws a picture of the political and educational philosophical ideas of the time when sloyd first appeared in schools as a subject.

Finally *the theoretical perspectives* – so far it has not been possible to define a specific perspective, which could be known as typical for only sloyd teaching and learning. However there is a lot to learn by studying related fields. Lindström (2002a; 2008b, 2009) has prepared the connection to Visual Arts and other aesthetic subjects, as well as to Popper's philosophy, Gombrich's understanding of art and science and Arieti's theory about the importance of emotions and what is not consciously decided in aesthetic learning processes. Art, Music, and Sloyd are all charged by general ideas that they support learning in other fields, besides the learning within the subject itself. Lindström (2009) describes a synthesis through presenting four strategies for learning; learning about (sloyd), learning in (sloyd), learning with (sloyd) and learning through (sloyd). The two first, *learning about* and *learning in* should be understood as something which has to be done within each subject, while learning *with* and learning *through* are strategies where different aesthetic field can substitute each other. What is possible to learn through Art or Sloyd has been described by Hetland et al. (2007). The American research team have through studies of good Visual art teaching in USA been able to distinguish several "Studio Habits of Mind" such as learning to "engage and persist", "to envision", "to observe", "to stretch and explore" etc. This part of the project will be more discussed in later publications.

## Concluding remarks

Looking back to what was intended to study, we have not been able to cover everything we intended, but we know much more about Sloyd now than we did before. To develop research based knowledge takes long time. Comparing with the first project from Linköping University in 1970s, we are still struggling with similar basic questions, however a lot of empirical material is waiting to be used, several scientific articles will come. We hope that this project will have an impact on further research and development of Sloyd knowledge.

## References

- Berge, B.-M. (1992). *Gå i lära till lärare. En grupp kvinnors och en grupp mäns inskolning i slöjdlärarkyrket*. Umeå: Institutionen för pedagogik, Umeå universitet. (diss.)
- Borg, K. (2006) What is Sloyd? A question of legitimacy and identity. *Journal of Research in Teacher Education*, nr. 2-3/2006. Umeå University, s 32-51 <http://www.educ.umu.se/presentation/publikationer/lof/>
- Borg, K (2007) Akademisering – en väg till ökad professionalism i läraryrket? *Pedagogisk forskning i Sverige* årg. 12, nr 3, s 212-226.
- Borg, K. (2008a) "Slöjd för flickor och slöjd för gossar". I: Borg, K. & Lindström, L. (red.) *Slöjda för livet – Om pedagogisk slöjd*. Stockholm: Lärarförbundets förlag.
- Borg, K. (2008b) "Kreativitet eller problemlösning? Vad bedömer vi i slöjden?". I: Borg, K. & Lindström, L. (red.) *Slöjda för livet – Om pedagogisk slöjd*. Stockholm: Lärarförbundets förlag.
- Ekström, A., Lindwall, O., & Säljö, R. *Questions, instructions and modes of listening in the joint production of guided action: A study of student-teacher collaboration in handicraft education*. (in press)
- Ekström, A. (2008) "Ospecifikt beröm och inlindad kritik". I: Lindberg, V. & Borg, K. (red.) *Kunskapande, kommunikation och bedömning i gestaltande utbildning*. Stockholm: Stocholms Universitets förlag.
- Engeström, Y. (1993). "Developmental studies of work as testbench of activity theory: The case of primary care medical practice". In Chaiklin, S. & Lave, J. (eds.), *Understanding practice. Perspectives on activity and context* (pp. 64-103). Cambridge, Mass.: Cambridge University Press.
- Eriksson, K.H., Guttormsen, E., Lundberg, T., & Malmberg, K. (1980). *Skolan och slöjden. Slutrapport. Projektet Laborativ Slöjd* (LiU-PEK-R-53). Linköping: Linköpings universitet, Pedagogiska institutionen.
- Harland, J., Kinder, K., Lord, P., Stott, A., Schagen, I. & Haynes, J. (2000). Arts education in secondary schools: Effects and effectiveness.
- Hasselskog, P. (2008a) "Sådan lärare, sådant lärande". I: Borg, K. & Lindström, L. (red.) *Slöjda för livet – Om pedagogisk slöjd*. Stockholm: Lärarförbundets förlag.
- Hasselskog, P. (2008b) "Här är det slöjdprocessen som räknas". I: Lindberg, V. & Borg, K. (red.) *Kunskapande, kommunikation och bedömning i gestaltande utbildning*. Stockholm: Stocholms Universitets förlag.
- Hetland, L., Winner, E., Veenema, S. & Sheridan, K.M. (2007) *Studio thinking. The real benefits of visual arts education*. New York: Teachers College Press.
- Illum, B. & Johansson, M. (in press). *Vad är tillräckligt mjukt? Kulturell socialisering och lärande i skolans slöjdpraktik*. FORMakademisk, 2(1),
- Johansson, M. (2002). *Slöjdpraktik i skolan - hand, tanke, kommunikation och andra medierande redskap*. Göteborg: Acta Universitatis Gothoburgensis. (Diss.)
- Johansson, M. (2006) The work in the classroom for sloyd. *Journal of Research in Teacher Education*, nr. 2-3/2006. Umeå University, s 152-170. <http://www.educ.umu.se/presentation/publikationer/lof/>
- Johansson, M. (2008). "Att tänka med nålen i hand – medierande redskap i slöjdpraktik". I: Rystedt, H. & Säljö, R. (red.) *Kunskap och människans redskap: teknik och lärande*. Lund: Studentlitteratur.
- Leontjev, A.N. (1986, 1977) *Activity, personality and conciousness*. Moskva: Progress Moskva/Fram Göteborg.
- Lindberg, V. (2006) "Contexts for Craft and Design within the Swedish Vocational Education. Implications for the content. *Journal of Research in Teacher Education*, nr. 2-3/2006. Umeå University, s 81-102. <http://www.educ.umu.se/presentation/publikationer/lof/>
- Lindberg, V. (2007) "Same syllabus in two contexts: vocational/liberal knowledge? In: Johansson, M., & Porko-Hudd, M. (Eds.) *Knowledge, Qualities and Sloyd. Research in Sloyd Education and Craft Science, Techne Series A* 10/2007, s 75-95.
- Lindström, L. (2001). Från novis till mästare. En studie av bedömningskriterier i slöjd. In Nygren-Landgärds, C. & Peltonen, J. (eds.), *Visioner om slöjd och slöjdpedagogik* (pp. 251-280). Åbo Akademi, Inst. för lärarutbildning, Vasa, Finland.
- Lindström, L. (2002a). Att lära genom konsten. En forskningsöversikt. In Hjort, M. (ed.), *Kilskrift. Om konstarter och matematik i lärandet* (pp. 106-131). Stockholm: Carlsson.
- Lindström, L. (2002b). Produkt- och processvärdering i skapande verksamhet. In Skolverket (2002), *Att bedöma eller döma. Tio artiklar om bedömning och betygssättning* (pp. 109-124). Stockholm: Skolverket/Liber Distribution.

- Lindström, L. (2006). Creativity: What is it? Can you assess it? Can it be taught? *The International Journal of Art & Design Education*, 25(1), 53-66.
- Lindström, L. (2008a) "Novis eller expert? Om bedömning inom slöjd och hantverk. I: Borg, K. & Lindström, L. *Slöjda för livet – Om pedagogisk slöjd*. Stockholm: Lärarförbundets förlag.
- Lindström, L. (2008b) "Intuitionens roll i estetiska läroprocesser. I: Borg, K. & Lindström, L. *Slöjda för livet – Om pedagogisk slöjd*. Stockholm: Lärarförbundets förlag.
- Lindström, L. (2008c) "...slöjden såsom medel att uppföstra människor". I: Borg, K. & Lindström, L. *Slöjda för livet – Om pedagogisk slöjd*. Stockholm: Lärarförbundets förlag.
- Lindström, L. (2009). "Mediated Action and Aesthetic Learning. Themes in Swedish Studies 1995-2008. In: Vetenskapsrådet, *Nordic Visual Arts Education in Transition. A Research Review*. Vetenskapsrådets rapportserie 14:2008. Stockholm: Swedish Research Council.
- Lindström, L., Ulriksson, L. & Elsner, C. (1999) Portföljvärdering av elevers skapande i bild. Stockholm: Skolverket/ Liber Distribution (rapport med CD-ROM och videofilm).
- Ritchart, R. (2002). Intellectual character: What it is, why it matters, and how to get it. San Francisco, CA: Jossey-Bass.
- Säljö, R. (2000). Lärande i praktiken. Ett sociokulturellt perspektiv. Stockholm: Prisma

## Endnotes

- 1 Sw. *Skolan och slöjden. Laborativ slöjd*. Linköping University, 1976-1979.
- 2 should be understood as the four stages: inspiration, planning, making and evaluation.

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## TEACHING FORM QUALITY IN CRAFT

### abstract

*This article is based on a Keynote speech held at the international conference Crafticulation and education in Helsinki 2008. It discusses a certain problem concerning craft articulation (crafticulation) or communication about form quality in craft education in Norway: Results from the author's recent research project, published as a PhD thesis in 2006, showed that there seemed to be a connection between how form quality was communicated, and the forms of the artefacts the students made. That is, that if the rules of the situation – what was accepted as good quality form – was unclearly stated, the students tended to limit their form expressions more than if the rules were clearly stated.*

*In this article, I ask the question: what are the reasons for the students self limitation in these supposedly open ended situations? A possible theoretical explanation for this phenomenon based in a psychological theory of judgement as a cognitive function, judgement heuristic theory, which Kahneman and Tversky developed into Prospect theory (Daniel Kahneman, 2002) is explored.*

**keywords:** *Formbild, form quality, education, constructivism, discourse analysis, judgement psychology.*

### Introduction

When educating students in craft, what do we tell our students are good quality forms? And what do students perceive of our teachings; how do students learn what a good quality form is?

Communication of form quality consists of more than verbal and visual elements. We communicate more than what we say out loud or explicitly show. And what is heard or seen is not always what was said or showed. This understanding of the *mechanisms of communication* present us, as teachers with some clear challenges, since, as teachers we want to be as much in control of our communication as we can.

The challenge of being teachers in craft is made even harder when the *object of communication* is avoiding static standard answers. Form quality, as an object or topic in communication, is a complex theme. At the conference, where this article was presented as a Keynote speech<sup>34</sup>, a new concept *crafticulation* were used. It was defined on the conference web-site as “(Craft + articulation); - how the culture of craft is constantly made, unmade, and remade”<sup>35</sup>. Such a flux-perspective on the culture of craft presents us with clear challenges on communicating quality, because the essence of quality itself may vary. How do we respond to such challenges? As another Keynote presenter at the conference, dr. Borg, explained, some teachers choose to avoid the problem of defining form quality by consciously abstaining from grading the aesthetic expressions of the pupils’ work. This action was documented in the large Swedish research project, Komulär<sup>36</sup>. The reason given was that the aesthetic expression is so closely connected to the personality, and

<sup>34</sup> The international conference Crafticulation and education, Helsinki, September 2008

<sup>35</sup> <http://www.helsinki.fi/kktl/crafts/index.htm>

<sup>36</sup> Led by Lindström et. al, Reports are soon to be published.

they did not want to judge or discuss that (Borg & Lindström, in print). This reflects an understanding of aesthetic expression as part of a person's born talent, not as something that may be taught and learned, and is a strategy often seen, but in my opinion, only an avoidance of the challenge, not an answer.

In 2006 I published a research project, *Constructing a Formbild*, as a part of a PhD study at Oslo School of Architecture and Design (Gulliksen, 2006). In this study I studied communication of form quality. Or rather, communication and circumstantial evidence of communicative activity; the effects of communication, how students positioned themselves within the different form quality discourses in educative situations. The object of the study was to understand how the students, during their education, constructed an understanding of form quality. That is, that they developed or changed positions in the discourses about form. I found that the students tended to change their position in the discourses about form quality during their education, and that they often ended up with sharing the position of the teacher.

One of the most interesting results found in the analysis of this changing mechanism, was that when the teacher avoided verbally or visually articulating her position clearly, the students tended to change their position to the teacher's more often and without registered discussions than when the teacher were explicitly articulating their positions. This suggested that the non-verbalized part of the communication had a strong influence, and even a stronger influence when not integrated in the verbal, articulated part of the communication.

This article continues the discussion of this finding further than the thesis (2006) did. I now want to explore a possible explanation of this phenomenon based in a psychological theory of judgement as a cognitive function, which Kahneman and Tversky developed into Prospect Theory (Daniel Kahneman, 2002). This expands the discussion from the thesis, which only described what and how it happened, but not ventured into any theoretical deliberations which could have explained why this happened. This psychological theory might provide such an explanation. However, first the article must give room for a presentation of this finding and the research that brought it forth.

### **Constructing a formbild – results from a research project<sup>37</sup>**

The research project (Gulliksen 2006) aimed to answer the question: how are formbild constructed in educative situations? That is: how do a group of people come to agree upon what a good quality form is? Groups of students tend to agree amongst each other and with their teachers, and in historical periods leading artists and designers tend to agree (as the styles in the baroque and renaissance periods). But why is that? What are the mechanisms that make this happen?

The theoretical deliberations concerning aesthetical qualities often end in the Kantian dichotomy: *das ding an sich*, *das ding für mich*, or the subject/object problem. Either the form quality is in the thing itself and can be described as objectively measurable, or at least recognisable, factors, or the form quality is in the eyes of the beholder: it is up to the singular person to decide what he or she likes.

The problem with both these perspectives is that they are not open to change. If a person like something, then why should she change her opinion? If the thing itself is essentially beautiful, then it should always be found beautiful by everyone at all times. We all know that this is not so simple. We do change opinion. A thing we found cool or beautiful in the 1960ies seems dated and strange in 2009. What was considered of high quality form in 1745 was deemed horrific by the functionalists in the 20<sup>th</sup> century. These theories are therefore insufficient. We need a third theoretical perspective, or a middle way.

<sup>37</sup> A full-text version of the thesis presenting this research project, may be found at [http://www.aho.no/Utgivelser/Avhandlinger\\_elektronisk/Gulliksen\\_avhandling.pdf](http://www.aho.no/Utgivelser/Avhandlinger_elektronisk/Gulliksen_avhandling.pdf)



Such a third theoretical perspective was established as the theoretical foundation for the research project. This was a constructivistic perspective, rendering the judgement of an artefact's form quality as a constructed opinion or position. A person constructs a set of principles for judgement of form quality, based on situation specific factors (time, place, objective and influence from others). This was referred to by the neologism *formbild*. For a definition and discussion of this concept, see Gulliksen 2006.

This theoretical perspective was grounded in social constructivism (Burr, 1995; Cobern, 1993). It emphasizes the relational aspects of the social interaction constituting the constructive processes (Bourdieu, 1996; Bourdieu & Johnson, 1993; Bourdieu & Wacquant, 1992), and especially the power aspects of these relations (Foucault, 1999, 2000; Foucault & Gordon, 1980). In order to analyse such constructive activity, critical discourse analysis (Fairclough, 2003) was selected as the most useful method of analysis.

### Empirical basis and result of the analysis

The empirical basis of the research consisted of two groups of students and teachers engaged in designing/craft processes. Group 1 studied "Design and Dressmaking" (N=18), group 2 "Wood and metal work" (N=16). The teacher in group 1 had the opinion that "there is no set answer" to form quality: If she liked one thing, then the students may or may not agree. Everyone was said to have the right of their own opinion. The teachers in group 2 were of another opinion. They stated: "We have a *formbild* and we wish to communicate it clearly", implicating that the students should agree with them.

Standard case study and observation methods (Angrosino & Mays de Pérez, 2000; Yin, 1994) guided the observation and documentation, focusing on the communication concerning form: How did the communication flow concerning form quality: where did they position themselves? Did they change position and in that case, what strategies were they using?

The analysis identified the *form* discourses within the field – the dynamical aspects of the *formbild* construction. The different positions and gaps between positions within the discourses were described. Often the students (S) held different positions than their teachers (T), and an important part of the analysis was to find out who changed position during the observed period and how they did this:

Identifying and discussing influences from the situational context on this discursive activity, the hierarchical aspects of the *formbild* construction was also a central part of the analysis. For a full presentation of the empirical basis and the research methods, see the thesis (Gulliksen 2006).

The main finding of the study was that the dynamic in the communication concerning form had a converging structure: the participants tended to agree more and more during the observed period. By 'agreeing' is meant 'sharing position'. Every change in positioning was towards the teacher's position:

Five different strategies for bridging gaps between the students' and teachers' positions were found and described. Four of the strategies led to agreement. Either

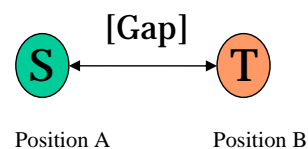


Fig. 1 Gaps in positioning.

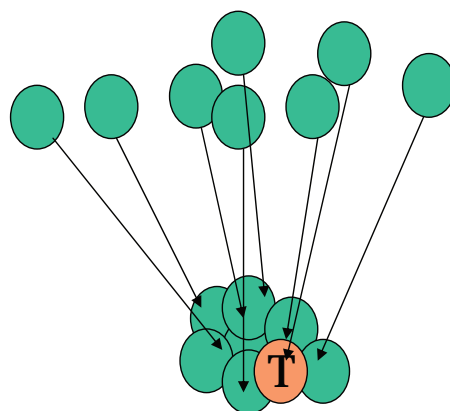


Fig. 2 the converging structure of the communicative activity.



students changed their positions explicitly or implicitly or teachers redefined their or the students positions in order to avoid gaps. By ‘redefining’ I do not mean ‘change’, but only that the teachers found other ways of describing the content in one or other position, thus making it more appealing to the students. Only one of the strategies left the gap to linger, and this strategy was only applied once in the observed periods.

The details of the mechanisms behind the converging structure had three stages after recognising the different possible viable positions: 1) Inclusion/exclusion of viable positions, 2) Stabilising a choice of position and 3) Cementing of a chosen position as a norm. In the first stage, formbild was a discursive object: it was open for change and there were several discussions of different possibilities. There were some limitations that conditioned what was possible to include and what should be excluded. These limitations could be either explicitly given in the assignment texts/type of product to make, time factors etc, or implicitly understood by the participants as within the norm of the situation. In the second, stabilising, stage, a choice of formbild had been made, and the communicative activity changed from relative to normative discourses about form. These discourses were conditioned by the role the participant assumed in the process and the artefact they made. The students in the third, cementing, stage were mostly concerned about communicating what they had decided to make. All gaps in positioning were bridged before this stage of the process.

In the thesis, many aspects of the dynamic and hierarchy of the constructive mechanism were discussed. In this article one, specific finding is emphasized:

Students who were not given, or did not recognise explicitly the given limitations or rules of what was a possible and viable position of form quality, limited their choice of form expression more than students who seemed to recognize clearly the limits<sup>38</sup>. This does not imply that all the students which recognized the limitations followed them. Often they disagreed and argued for an alternative form quality and some times made things their teachers explicitly had said that they did not like.

So why it is that the unclear rules were the most limiting?

### Judgement as a cognitive function

When constructing a formbild one is making judgement of form quality. Something is judged to be of good quality, something else is not. The mechanisms of construction of a set of principles for this judgement were in the research project described, but not explained. This paper suggests that a possible explanation may be found in the psychology of making judgement.

Judgement as a cognitive function has different modes (Daniel Kahneman, 2002). First of all, it relies on perception of some sort. One has to perceive what should be judged. The input one perceives is then evaluated – or judged. Judgement has an intuitive mode (System 1) and a controlled mode (System 2).

In the first judgement system, intuition, the process of making a judgement is fast, associative, parallel, and effortless. It is also slow learning. That is: our intuitive understanding of a situation, a person or an artefact is a fast process, but this intuitive understanding may change when given time and information. For example, we understand a person differently when getting to know her, than the first time we laid eyes on her. The key-word here is *learning*: As we make different intuitive judgements when experiencing and reflecting, we learn to get better at making intuitive judgements. Recognizing intuition as a changeable size opens up this possibility for learning.

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38 Whether or not the students recognized this, was an interpretation. This interpretation was based on what they discussed, what way they discussed it, and what they ended up making. See the thesis for more details of this (Gulliksen 2006).

In the second judgement system, the process of making a judgement is slow, serial, controlled, effortful, and rule governed. But it is also flexible. That is, that it is more open to re-considering, analysing, and seeing more than one side of a situation.

We base your judgement on what is available for us at the time. Kahneman and Frederick separate between natural assessments and contextual assessments. They made a compilation of different natural assessments in 2002 (Kahneman & Frederick, 2002). Natural assessments may be the *physical properties* of what you are judging, as size, distance, loudness etcetera. It can be the *abstract properties*, as similarity, causal propensity, surprisingness etcetera, or what you are *motivated to see*, as the emotionally enticing, the affective valence etcetera.

Kahneman gives the example below in his Nobel speech in 2002, when receiving the Nobel Prize in economy for his development of Prospect theory based in this judgement heuristic theory. In the example, the question is: which of the three figures has the most in common?

What springs first to mind answering this question, is the height of the two towers A and C. That height is similar, therefore the most natural assessment is that it is they who has the most in common. When spending some more time studying the figure, it is possible to count the numbers of cubes in figure A and B. They add up to the same number. Therefore they too may be said to have much in common. Counting is not as easily available as sight; it is therefore not a natural assessment. Natural assessments are routinely and automatically registered by the perceptual system or by System 1 of judgement making.

As an example of contextual assessment, Kahneman present this figure:

The figures in the middle of the rows are clearly recognizable as the letter “B” in the first row, and as the number “13” in the second. But, when studying the figure more closely, it is possible to see that the lines the figures consist of are exactly the same. It is only the context which makes us interpret the visual stimuli as two different symbols. Taken away from the context, we would probably not make the distinction between the two.

What the psychological judgement theory explain, is that when presented with such ambiguous stimuli, System 1 – intuition – is insufficient, System 2 – reasoning – takes over. Intuition is most often very sure of it self. The doubt is in the reasoning, when you see alternative solutions. In turn this means that when running into ambiguous stimuli and reasoning your way into alternative solutions several times, then reasoning may educate the slow learning intuition. Intuition and perception has an inherit ability to learn, learned by previous reasoning.

For example an experienced teacher will more often have good intuitive solutions on a problem than a new teacher. The “female intuition” we often refer to concerning some women’s intuitive judgements of social

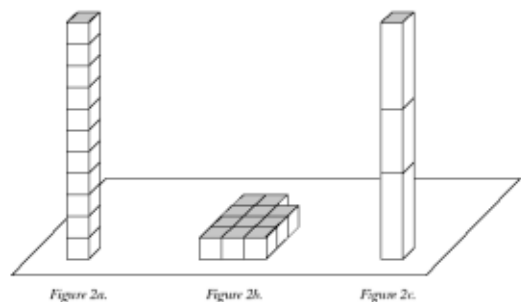


Fig. 3 Natural assessment (Daniel Kahneman, 2002)

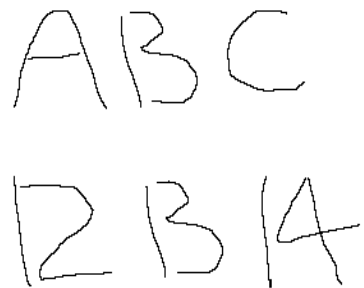


Fig. 4 Contextual assessment (Daniel Kahneman, 2002)

B

B

Fig. 5  
Contextual  
assessments  
(Kahneman  
2002),  
section made  
by author.

situations, may be the result of a person's life long reasoning, deliberation and interest in understanding such situations, which others may not have.

But – System 2 may not always take over. And this is what may be the case in the research project, and the explanation of why students limited themselves more when the situation presented unclearly given rules of what was good or bad quality form.

Another mechanisms the psychological theory of judgement describes, is *attribute substitution*. This is based in a heuristic of judgement: what makes a decision easier. In short attribute substitution is what we do when asked a question or presented stimuli that is too complex, then we give an answer to another, easier, question (Daniel Kahneman 2002:466). Take a quite ordinary question teachers in craft and design often are supposed to answer in their teachings: the question "What is 'good design' in Western Europe today" which is a very different question to answer, being broad and complex. Subsequent questions must be answered first before answering this question: what is Western Europe – which part of it (social class, country, time, style), what is good design (beautiful forms (which is what?), functional objects) etcetera. Only a very few individuals will have the slightest possibility to give a full answer to this question, and even they may only give a

partial answer. Therefore, when asked this question, we answer *as if* the question was "Can you give some examples of what you (being a citizen of a country in Western Europe), think is good design?" Often this is what we teachers do. And what people in general do when trying to cope in the everyday trenches of communication and living.

## Conclusions

Thus, returning to the result from the research showing that unclearly given rules of what is a good quality form tended to make the students limit themselves in their form expressions more than when the rules were clearly stated, we may have a possible explanation:

As stated in the introduction of the paper, the two incompatible theoretical positions: the subject/object problem forms the basis of the complexity. Understanding form quality as either something inherent in the object itself (which students can be taught to discriminate between) or as something dependant of the individual person's taste (which students should be allowed to keep and refine), leaves the teacher in an impossible position when both supposed to encourage openness, diversity and a personal formbild, and at the same time teach "correct" quality judgements. This two incompatible aims, makes the communication concerning form unclear.

When designing and constructing our formbilds, the different possible and viable positions are presenting us with ambiguous stimuli. When the different positions are clearly presented and discussed and therefore possible to discuss, the students engage System 2 – reasoning – and are able to reason and agree or disagree with their teachers. They therefore may cross boundaries and be relatively free in where they position themselves in the discourses about form. However, when the positions are unclearly stated, the ambiguous stimuli are too vague, too complex. The students are not able to identify a position to reason against, and so they engage attribute substitution instead of System 2.

When engaging attribute substitution, the students substitute complexity with simplicity, making forms they can be pretty sure the teachers will like. Their attribute substitution leads them to make what they *intuitively believe* that the teacher wants them to, thus limiting themselves and their form expressions to more standard solutions than necessary in an *un-educated* System 1 mode of judgement, intuition.

## Challenges for craft education

I am of the opinion that an aim in form quality education should be to teach students to reflect and reason on form quality, in order to make the best forms they possibly can. That is, using System 2. At the same time the education should help the students to actively evoke System 2 to educate the slow learning System 1 in order to make the students gradually better at making intuitive judgements on form quality. This way the students will learn to recognize form quality and the different possible positions in the discourses about form, and at the same time encourage their development of a personal voice when designing,

This may be done by presenting form quality as a negotiable, flexible and changeable size. Presenting and reflecting upon which present circumstances quality should be judged by, is a key. Crafticulation may here be both a means and an end. This will help us communicate more clearly the different possible positions, as such, as positions in discourses, not as non-changing stories of inherent beauty of an object or as random results of personal taste, personality, or preference. In turn this will present the students with an opportunity to reflect more critically on their designs when making craft and allow the students and teachers to be more in control of what is communicated in the educative situations.

## References

- Angrosino, M. V., & Mays de Pérez, K. A. (2000). Rethinking observation - from method to context. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative Research*. Thousand Oaks, London, New Delhi: Sage Publications Ltd.
- Borg, K., & Lindström, L. (in print). *Slöjda för livet - om pedagogisk slöjd*. Stockholm: Lärarförbundets förlag.
- Bourdieu, P. (1996). *The rules of art : genesis and structure of the literary field*. Cambridge: Polity Press.
- Bourdieu, P., & Johnson, R. (1993). *The field of cultural production : essays on art and literature*. Cambridge: Polity Press.
- Bourdieu, P., & Wacquant, L. J. D. (1992). *An invitation to reflexive sociology*. Cambridge: Polity Press.
- Burr, V. (1995). *An introduction to social constructionism*. London: Routledge.
- Cobern, W. W. (1993). Contextual constructivism: The impact of culture and the learning and teaching of science. In K. Tobin (Ed.), *The Practice of Constructivism in Science Education*. New Jersey: Lawrence Erlbaum Associates, Inc.
- Fairclough, N. (2003). *Analysing discourse : textual analysis for social research*. London: Routledge.
- Foucault, M. (1999). *Diskursens orden. Tiltredelsesforelesning holdt ved Collège de France 2. Desember 1970* (E. Schaanning, Trans.). Oslo: Spartacus.
- Foucault, M. (2000). *Power*. (R. Hurley & et.al., Trans. Vol. 3). New York: The New Press.
- Foucault, M., & Gordon, C. (1980). *Power/knowledge : selected interviews and other writings 1972-1977*. Brighton: Harvester Press.
- Gulliksen, M. (2006). *Constructing a Formbild - an inquiry into the dynamical and hierarchical aspects of the hermeneutical filters controlling the formbild construction in design education situations.*, Oslo School of Architecture and Design, Oslo.
- Kahneman, D. (2002). Maps of bounded rationality: A perspective on intuitive judgement and choice. Retrieved 1. Februar 2009, from <http://www.nobel.se/economics/laureates/2002/kahneman-lecture.html>
- Kahneman, D., & Frederick, S. (2002). Representativeness revisited: Attribute substitution in intuitive judgement. In T. Gilovich, D. Griffin & D. Kahneman (Eds.), *Heuristics and Biases* (pp. 49-81). New York: Cambridge University Press.
- Yin, R. K. (1994). *Case study research : design and methods* (2nd ed.). Thousand Oaks, Calif.: Sage.

## Quoted web page:

<http://www.helsinki.fi/kktil/crafts/index.htm>, retrieved 2009-02-08

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## STUDYING AND TEACHING CRAFT: POSSIBILITY AND NECESSITY

### abstract

*The article characterises the relations of the content and aims of craft education in respect to the development of the society, and the objectives of craft education in the postmodernist society. The content and aims of the subject are analysed through certain periods in different centuries, and their connection to social requirements.*

*Craft has been included in the Estonian Curriculum for General Education School since 1894. At that time teaching was based on the principles of the so called labour school (Arbeitschule). Post-war social and economic changes brought along alterations in the contents and aims of craft. Until the beginning of the present century the subject had a largely utilitarian content. The fast development that the society has undergone during the recent years has again created the need for updating the subject syllabus of craft, which should focus more on developing individual and social skills.*

**keywords:** *society, influence, craft, syllabi, craft education*

### Introduction

In Estonian education manual activity has been considered as an essential component of personality development for a couple of centuries. The first known references to teaching craft in Estonian ‘folk schools’ date up from the early 19<sup>th</sup> century, more exactly from 1804 (Sild 1922). With a few exceptions craft has been a school subject from the given period up to today; the development of its content and aims have been influenced by different trends in pedagogical theories and by the contents and teaching systems of the subject in other countries.

Furthermore, the contents and aims of craft have altered together with the developments occurring in the society. Estonian history has shown that craft very accurately reflects the society’s expectations of education. Dependent on the mental atmosphere and the economical situation in the society, understanding the necessity and the popularity of the subject has progressed in tides. At the same time each phase that has passed has shaped the further destiny of the subject.

As a consequence, the relations between the development of the society, and the contents and aims of craft in Estonia will be analysed in the following. Three of the most characteristic short periods in three different centuries will also be observed.

### The formation of the content and the didactical system of the subject in Estonia

When speaking about the development of culture and education in Estonia, multilateral influences have to be kept in mind conditioned by the geographical position of the Baltic countries: on the one hand, there has been the influence from Western Europe and Scandinavia and on the other, that from the tsarist Russia, a part

of which Estonia was at the turn of the 19<sup>th</sup> and the 20<sup>th</sup> century. Similarly, via two different routes, also the ideas of the labour school arrived in Estonia (see Fig. 1).

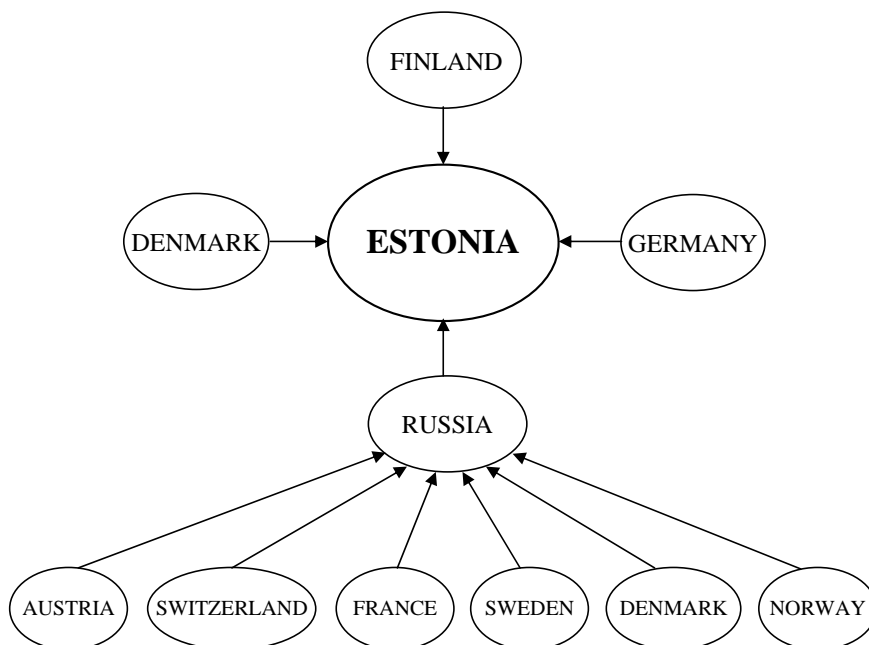


Fig. 1 Influences on Craft Education in the 19<sup>th</sup> century.

While provost Johann Philipp von Roth founded a new type of parish school for boys at the beginning of the 19<sup>th</sup> century, the ideas of Pestalozzi and Diesterweg influenced education in Estonia. In addition to general subjects also wickerwork, brush making and other types of handwork was taught to boys. In handicraft school for girls which were opened at the same time, brush work, weaving, and sewing were taught. The costs of education was largely covered with the money obtained from selling the students' handicraft products (Hirvlaane 2004). Learning craft was associated with purely pragmatic objectives: on the one hand, acquiring skills in craft was necessary for earning one's living in case of need, and on the other, domestic commodities were mainly made by one's own hands.

At the time when in Finland folkschool reformation was performed from the initiative of U. Cygneaus and when the Dane A. von Clauson-Kaas started to promote his teaching more widely, explaining the importance of the subject of craft gained additional ground. Next a few examples of the influences from the Nordic Countries and from Western Europe.

One of the first active promoters of the school subject of craft was C. R. Jakobson, who as a member of the national movement tried to get Estonians acquainted with the new pedagogical trends that were already popular in other parts of the world. After visiting the exhibition of student work in Finland in 1876 he told stories about what he had seen and experienced to the Estonians.

"Thus in Finnish folk schools not only students' heads are trained in the most skilful way, but also their hands are trained in crafty activities." (Jakobson 1959, 429)

His advice for parishes was to send an educated woman or a school master to study craft in Finland for a year, so that they could later convey the knowledge and skills acquired abroad also in Estonia.

In January 1878 Adolf von Clauson-Kaas, a Danish pedagogue visited Tartu, where he introduced craft as a school subject to local teachers. Six months later he visited Estonia again. This time courses for learning craft and learning to teach the subject were organised so that it attended by 44 men and 18 women. The men's program included 11 types of labour; whereas women were taught only needlework. Additionally, direct influences came from Germany, which is evidenced by Tartu Craft House for Boys which was founded in 1888 according to the example of the Leipzig craft house for boys (Tartu 1929).

However, the official educational policy came to Estonia from the tsarist Russia, where the centre of teaching and development of craft was in the Institute of Teacher Education in St. Petersburg. In order to work out an individual content and methodology of teaching, Otto Salomon Seminar in Sweden and Leipzig Teacher Seminar were taken as models. Also the organisation of craft teaching in Austria, Switzerland, France, Poland, Denmark, and Norway were closely studied. Based on these obtained experiences the so called Russian system in teaching craft was developed.

The official date of craft becoming a subject in Estonia is the 6<sup>th</sup> of March in 1894, according to the tsar's ukase of including craft in the list of subjects of general education schools was issued in Russia. As a result craft became an official subject also on the Estonian territories. This step was justified with the positive impact of the subject on children's development in case "the teaching has fixed educational aims and if the subject is taught by following didactically correct principles" (Tsirkuljarõ 1894, 253). Craft that was taught on such principles as this demanded for a reformation of the school system as a whole: new forms and methods of study. Schools were no longer allowed to use practicing craftsmen as pedagogues; they were replaced by teachers with specialised education. Official programs were sent to schools from St. Petersburg; also the teachers in the 'city schools' acquired their knowledge and skills in summer courses organised by the Institute of Teacher Education in St. Petersburg.

Thus, in the form of the labour schools the ideas of reformatory pedagogy had reached Estonia by the beginning of the 20<sup>th</sup> century through direct contacts with the Western and Northern European countries and as a part of the official educational policy from St. Petersburg.

### **Socio-economic influences on the subject in the 1950s and the 1960s**

For objective reasons the post-war problems in the society and in education were initially specific. The situation of schools was generally difficult, everything was ruined and destroyed. In order to start teaching in the first place schools needed paper, exercise books, pencils, and other necessary things, not to mention numerous other teaching equipment that is used to teach the subject. Also the issue concerning students' clothing was topical – there was a lack of footwear, warm winter clothes, etc. But maybe this was one reason why nobody had doubts about the need for craft as a school subject at the time. Based on the purely practical needs, the aim of craft was to make study materials for the school by using tools and materials brought along from homes.

At the beginning of the 1950s (more specifically in 1951-1954) there was a short pause in craft education, which was due to "the inability to understand the pedagogical values of the subject". It was thought that, when "Soviet technology has taken huge leaps in development, craft no longer has a place in school programs, because it arguably cultivates home industrialism in students and provides them with skills that are unnecessary for living" (Vagen 1954). The material bases necessary for teaching craft were ruined and workshops were destroyed.

In 1952 the requirement for providing polytechnic education was established in the Soviet Union, and reintroducing craft as a school subject in the curriculum became a common topic again; it was put into practice in the academic year 1954/1955. Emphasizing the importance of polytechnic education gave rise to changes in the curriculum as a whole. In general education schools the amount of humanities decreased and the volume of sciences and practical activities increased about 7%, since practical mechanics and electrical engineering workshops were added to craft subjects (Hoolitseda 1955).

The pause in teaching craft had its setbacks for years. Along with the interim ruining of the material bases, there was a gap also in teacher education. Due to the centralised distribution system of the means the situation improved continuously. In order to provide teachers with subject based knowledge, short courses on craft were organised.

Table 1 Dynamics of Craft lessons in study plan from 1945 to 1959.

School year	Grade Subject	1	2	3	4	5	6	7	Total 1 to 7	8	9	10	11	Total 8 to 11	Total 1 to 11
1945/56	Craft (or Latin Grades 7 to 11)*	2	2	2	2	2	2	2	14	1	1	1	1	4	18
1946/47	Craft (or Latin Grades 7 to 11)	1	1	1	1	1	1	1	7	1(2)	1(2)	1	1	4	11
1947/48	Craft	1	1	1	1	1	1	1	7	1	1	1	1	4	11
1948/49	Craft	1	1	1	1	1	1	1	7	-	-	-	-	0	7
1949/50	Craft	1	1	1	1	-	-	-	4	-	-	-	-	0	4
1950/51	Craft	1	1	1	1	-	-	-	4	-	-	-	-	0	4
1951/52	Craft	-	-	-	-	-	-	-	0	-	-	-	-	0	0
1952/53	Craft	-	-	-	-	-	-	-	0	-	-	-	-	0	0
1953/54	Craft	-	-	-	-	-	-	-	0	-	-	-	-	0	0
1954/55	Work in research garden and in workroom					1(2)			1,5					0	1,5
	Craft	1	1	1	1	-	-	-	4	-	-	-	-	0	4
1955/56	Craft and practical training	1	1	1	1	2	2	-	8	-	-	-	-	0	8
1956/57	Craft and practical training	1	1	1	1	1(2)	2(1)	1(2)	8,5	1	2	1(2)	2(1)	6	14,5
1957/58	Craft and practical training	1	1	1	1	1(2)	2(1)	1(2)	8,5	1	2	1(2)	2(1)	6	14,5
1958/59	Craft and practical training	1	1	1	1	1(2)	2(1)	1(2)	8,5	1	2	1(2)	2(1)	6	14,5

\* The number in brackets indicates to the lessons on the second semester.

The number of craft lessons in the curriculum varied during the post-war period (Table 1). After the war, initially there were two craft lessons in grades 1 to 7, and one lesson in grades 8 to 11. The reason for having craft lessons in secondary school was practical: students in the higher stages of school were obliged to make different objects for the school: desks, tables, shelves, maps, and other teaching materials. When the subject was reintroduced in the curriculum after the pause that had lasted for a few years, there was one craft lesson a week in grades 1 to 4, but in grades 5 to 6 there were two lessons under the name of practical training. Until



1959 there was only one craft lesson per week in elementary school, in grades 5 and 7. There was only one lesson on the first semester and two lessons on the second semester; in grade 6 there were two lessons on the first semester and one lesson on the second semester. During these years secondary school students had also practical work; the content of the work was related to vocational orientation. Students learned, for example, engineering-fitter's work, car mechanics, cattle breeding, etc. As we can see, in Table 1, also the name of the subject has varied in different the years.

Post-war social and economic changes brought along alterations also in the contents and aims of craft education. Irrespective of the initial general educational aims the subject had still a largely utilitarian content: main attention was focused on the final product of manual activity. This was due to the society's expectations on the subject: during the unstable period and economic depression, it was possible to acquire skills for making everyday objects through craft; very economically and this was important for the people, in order to cope with everyday life.

### **Expectations to the subject today**

In the contemporary curriculum for general education schools the subject has a common name "craft", which comprises four different syllabi (Põhikooli 2002): Handicraft for grades 1 to 3 and Handicraft (mostly includes textile work) and home economics and craft and technology education (woodwork, metalwork, electro-technical etc. work) for grades 4 to 9 (Fig. 2).

To carry out craft and technology, handicraft and home economics lessons students are divided into two groups irrespective of the gender, considering the wills of the students and their parents. In Estonia handicraft and home economics is an integrated subject; girls tend to choose handicraft and home economics, while boys tend to prefer craft and technology education. In agreement with each other and in case of students' interest the teachers of craft and technology education and handicraft and home economics switch student groups, so that the students of the handicraft and home economics syllabus group learn a technical block chosen by the instructing craft and technology education teacher, while the students of the craft and technology education group learn topics concerning home economics and catering under the instruction of the handicraft and home economics teacher. Such a system enables all the students to acquire general knowledge and skills covering the whole syllabus of craft. The number of lessons needed to cover the topics and their distribution by classes and their order is determined by the teacher, linking the craft syllabus of the school with other subjects. Subject syllabi are compiled by schools, choosing the theme blocks from the national curriculum that suits the school. In secondary schools craft lessons are no longer obligatory, but in some rural areas craft is taught also in upper secondary schools as an optional subject.

Presently teaching is based on the syllabus dating back to 2002. From the beginning of the 1990s Estonia has undergone vast socio-economic changes. This has resulted in the need to reassess some principles in the educational system that have been applied for a long time, and also in the need to update the curriculum, including issues related to craft education. Mainly objects/items are produced within the subjects of craft; in the frame of reference of the process such issues as energy, transport, production, food, and home appliances. Even today teaching traditional handwork is leading in the syllabus; issues such as preparing students to cope with the contemporary society, and family and everyday life are left in the background.

In order to obtain well based recommendations for developing the syllabi, two nationwide studies were carried out within the scientific project "Contemporary Conception of Handicraft and Home Economics Resulting from the Knowledge of a Conscious Consumer and from Developing Social Readiness" (Lind et al 2007). The aim of the study was to examine the present conditions concerning teaching the subject in

Estonia and to learn about the vision that the young and subject teachers have about contemporary craft education.

The first nationwide study involved young people. The informants of the study were young men and women between the ages of 20 and 29, because at that age young people have generally started independent life and they have had time to reflect on the importance of knowledge obtained from school and its connectedness with everyday life. Compiling the sample, a total of 1000 informants, was based on the principles of random sampling.

The questionnaire comprised thirty questions. The blocks of questions involved the domains of both handicraft and home economics and these were primarily aimed at finding out the opinion of the young – what do they consider important in handicraft and home economics from the point of view of coping in individual life. Although the questions directly concerned handicraft and home economics, which at school were passed only by girls, also boys were included in the sample, in order to find out their opinion about the necessity of handicraft and home economics in general education schools.

The second questionnaire was gathered from teachers of handicraft and home economics and altogether 420 copies were given out to all the counties. The questionnaire treated the issues of the aims of the subject teaching, the choice of basic topics, integration possibilities with other subjects, the acquired competences and their connection with general competences, as well as the assessment of the present situation. In order to reduce the variability in the contents, some questions in both of the questionnaires had multiple choice answers, although the possibility to express additional opinion remained.

The results of the study have been published (Lind et al 2006; Pappel et al 2006) and the process of developing syllabi is based on these results. When summarising the results we can say that according to the teachers' opinion the aims of the subject were providing students with knowledge that is necessary to cope in everyday life; developing students' skills and healthy lifestyle; raising conscious consumers. In the domain of home economics, healthy nutrition and sustainable consumption were of the greatest significance; in handicraft more attention was paid to shaping students working skills and habits, as well as to developing their aesthetic taste. In teachers' opinion the most important skills to be acquired was respect for work and applying theoretical knowledge in practical activities (65% and 50% of the respondents, respectively). These were followed by ability to economic thinking, awareness of national culture, and skill of using tools (36%, 34%, and 33% of the respondents). Collaboration, an important part of social competence, was placed on the last position in teachers' priority rating of skills (chosen by 8% of the respondents).

The young informants connected the subject primarily with creating an original home, managing economically, and healthy nutrition (64%, 60%, and 55% of the respondents, respectively). These skills were followed by the possibility to practice a pleasing hobby (37%) and sew one's own clothes (23%).

Both the young informants and the teachers believed that the subject has the most influence on developing individual qualities and abilities such as manual skills, creativity, stability, logical thinking, spatial perception, sense of colour, and accuracy and readiness to collaborate. Unfortunately the skill of using subject related information was not valued, although it is highly important in the case of the considerable amount of information in the present-day society.

Based on the results of the study the contemporary conception of the subject is established as follows:

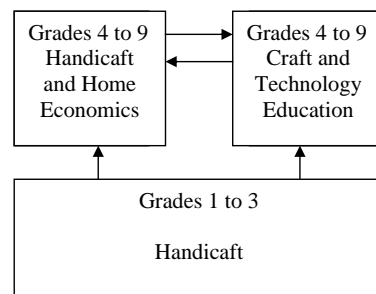


Fig. 2 Craft in Estonian general education schools.

- Teaching should proceed from the principle – one should be able to cope in life in any situation.
- Craft should be an integrative subject, where theoretical knowledge obtained in other subjects is applied.
- To support process of self-expression.
- Craft should definitely be integrated with modern technologies.
- Retaining and developing the national material culture.
- Children have to be taught to work.

## **Conclusions**

The socio-political changes that occur in the society are directly reflected in the school subject of craft. Pursuant to the social demands either the pragmatic side of the subject (acquiring skills that are needed to earn one's living or to make commodities needed in everyday life) or the type of teaching that develops students' personal qualities and social skills is of higher value.

Analysing different periods of time we can make an unconventional observation: The more unstable the economy, the more craft as a school subject is valued. This means that valuing material, technological education and acquiring practical skills tend to overshadow general educational principles. This creates a situation, where educationalists need constantly to analyse and promote the necessity of craft education and the possibilities offered by the subject from the point of view of students' development.

## **References**

- Hoolitseda töökasvatuseks vajaliku materiaalse baasi loomise eest. (1955) – Nõukogude Õpetaja, No 34.
- Hirvlaane, M. (2004) Kanepi kool läbi kahe sajandi. Kanepi Gümnaasium.
- Jakobson, C.R. (1959) Soome maast ja rahvast üleüldse. Valitud teosed I. Tallinn: ERK.
- Lind, E; Pappel, K; Ojaste, A; Paas, K. (2006). The concept of craft in Estonian general education schools. In: Tradition in transition - teaching Sloyd, Arts and Crafts in contemporary society. The Proceedings of the Scientific Conference. Umeå: Umeå University, 31-32 pp.
- Lind, E., Pappel, K., Paas, K., Ojaste, A. (2007) Käsitööõpe üldhariduskoolis. Noorte ja õpetajate arvamusuuring. Haridus, 11-12. 33-37 pp.
- Pappel, K., Lind, E., Ojaste, A., Paas, K., Malmstein, K. (2006) The Role of Home Economics and Craft in Shaping technology – Related Competence in Estonian School of General Education. In: Journal of Science Education, Vol 7, 47 – 50 pp.
- Põhikooli ja gümnaasiumi riiklik õppekava [National Curriculum for Basic and Secondary School] (2002). In: RIIGI TEATAJA I, 20. <http://www.riigiteataja.ee/ert/act.jsp?id=1008388>, 24.10.2008.
- Sild, O. (1922) Johann Philipp von Roth. – Eesti Üliõpilaste Seltsi album VII. Tartu. 39-66.
- Tartu Õpetajate Seminar 1828-1928. (1929) Tartu: Tartu Õpetajate Seminari Vilistlaskogu. *Tsirkuljarõ* po Rižskomy utšebnomu okruguga za 1894 g. Nr 6.
- Vagen, A. (1954) Käsitöö õpetajad täiendasid oma teadmisi. - Nõukogude Õpetaja, 31.

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## CRAFT DESIGN PROCESSES IN VIRTUAL DESIGN STUDIO

### abstract

*The central idea of the present paper is to explore pedagogical practices and methods that allow one to acknowledge the role of material culture in human learning and activity. Designing cannot be reduced to mere play with ideas; in order to understand and improve the ideas in question, they have to be given a material form by means of practical exploration, prototyping, and manufacturing. The practices of Virtual Design Studio highlight how individuals shared and constructed design knowledge within these distributed design processes and how virtual environments can support these design processes. The paper describes two different design experiments which were carried out in real-life and in distinct environments. These cases will be used to illustrate some key ideas of Virtual Design Studios (VDS): 1) the elementary level students' architectural design case highlights the conceptual and material aspect of design and 2) the university students' "Conference Bag Designing" emphasizes the participatory and user-centred nature of design.*

**keywords:** virtual designing, collaboration, knowledge building, craft design processes

### Introduction

The emerging innovation society creates novel challenges for the educational system. Present-day students are expected to engage in designing, creating, sharing, and manufacturing complex cultural artefacts by capitalizing on versatile collaborative technologies. The focus of knowledge intensive work is increasingly concerned with the systematic pursuit of novelty and innovation. The 'innovation society' requires competencies that develop through participation in the practices of working with knowledge and solving authentic problems of understanding. This process is called *knowledge creation* (Bereiter 2002; Hakkarainen, Palonen, Paavola, & Lehtinen, 2004). In this process, learning is treated as analogous to innovative processes of inquiry where new 'objects' — a concept, plan, or product — are communally created, and the participants' initial knowledge is either substantially enriched or significantly transformed (Bereiter 2002; Hakkarainen, Palonen, Paavola, & Lehtinen, 2004). With this as the starting point, the design can be seen as an archetypical form of innovative learning, where one has to learn not only that which is already known, but where one has also to go beyond what is given and learn the potentials in a situation for creating something new.

Human beings have a specific capacity to transform their plans and ideas into the form of shareable artefacts, which embody both meanings and matter. Design artefacts, although concrete, implicate a vast continuum of abstract ideas and inter-related realities and perceived social, cultural and educational values. Latour (1999; 2005) argues that all artefacts are hybrids in nature because they contain both conceptual (objectified intentions, purposes, and significations) and material aspects; creation, development, and sharing of artefacts requires that those be given an externalized form at some stages of the process. It is clear that designing cannot be reduced to mere play with ideas; in order to understand and improve the ideas in question,

those have to be given a material form by means of practical exploration, prototyping, and manufacturing. Designing these objects is an active, distributed meaning-making process (Cole, 1996; Wertsch, 1998). Designing is a complicated long-term creative process; where the designers work with open-ended, ill-defined problems and apply domain-specific knowledge in order to find the solution to design problem (Akin, 1986; Goel, 1995). Especially, in this cognitively oriented research tradition, the design process is generally considered to be a complex and iterative problem solving process; i.e., design solutions emerge gradually as a process of structuring and restructuring the problem, defining and redefining constraints of designing, and generating and testing design solutions (Akin, 1986; Goel, 1995). In the design process, the visual and technical design elements must be considered and related to each other and within the constraints in order to create a functional and aesthetic solution (Seitamaa-Hakkarainen, 2000). To conclude, designing has a special significance in promoting human creativity, particularly when conceptual and material aspects of the process reciprocally support one another (Kangas, Seitamaa-Hakkarainen & Hakkarainen, 2007). Designing is essentially included into craft processes and craft can be seen as the way to materialize the design thinking. Designing and craft processes both have conceptual and material aspects.

Furthermore, the research on social creativity suggests that the core of humans' intelligent performance is not the individual mind but groups of minds in interactions with each other and with tools and artefacts (Fischer & al., 2005; John-Steiner, 2000). Collaboration and mediating artefacts have been found to be instrumental to human thinking processes (Hutchins, 1995). According to Hutchins (1995) distributed cognition refers to the notion that cognitive achievements arise from the collaboration among members of a social group and from working with the mediating artefacts such as the materials, tools, sketches or technologies. Recently design research has also become more interested in the collaborative and distributed nature of designing processes (Perry & Sanderson, 1998; Valkenburg & Dorst, 1998; Brereton, 2004). The physical artefacts, such as traditional hand-drawn sketches are models of proposed design solutions and the role of these physical artefacts in the design process has been studied both from an individual (e.g., Goel, 1995; Seitamaa-Hakkarainen & Hakkarainen, 2000) and collaborative (e.g., Valkenburg & Dorst, 1998) point of view. However, the traditional physical model of design artefacts has now extended to virtual reality or mixed-reality technologies that allow different kind of models of design artefacts (Cross, 2007).

Collaborative designing of products for everyday or business use focuses on creating a common design artefact (Seitamaa-Hakkarainen, Lahti & Hakkarainen, 2005), and it, in a very concrete sense, emphasizes the development of shared objects. As stated earlier, designing has conceptual and material aspects: It is not only focused on developing the participants' ideas through taking part in knowledge-seeking inquiries, but also on creating design prototypes, shareable traditional or virtual models, and concrete, material products. The efforts of collaborative designing are organized towards developing shared design ideas (conceptual artefacts), embodying and explicating those ideas in visual sketches, and giving the ideas a material form as prototypes, models and usable cultural products. Both conceptual and physically embodied design artefacts may be considered as trialogical objects (Paavola & Hakkarainen, 2005) around which the participants' efforts are organized. In the design process this also usually involves interaction with users whose needs and desires form constraints on the design process. The role of collaboration and multi-professional teams has only recently begun to be emphasized in design education.

In this paper, I am interested in the role of social and material practises of craft designing and how technology i.e. virtual learning environments can support design processes. I will describe our research projects that have been focused on Learning by Collaborative Designing (LCD). The research project in which I, together with my research team have been working, have varied from elementary school level to higher educational level students in textile teacher education as well as into industrial design students. In

short, our research strategy is based on several design experiments (Cobb, et al., 2003; Edelson, 2002) which we have conducted: two longitudinal design experiments in elementary level education; five experiments at textile teacher education and two cases in a professional level of design. Each project addressed a particular aspect and supported a form of technology-enhanced learning in collaborative designing. Common to these design experiments was that they resulted in our design learning and teaching theories i.e., the development of an LCD model. Each of the experiments were interventionist and iterative in nature, taking place in naturalistic contexts, with an applied variety of data collection methods (Cobb, et al., 2003).

The first part of the paper introduces the model of Learning by Collaborative Designing (LCD). LCD aims at eliciting parallel efforts to develop design ideas and to embody the ideas articulated in visual sketches, prototypes and material objects. One of the central ideas of the present projects has been to explore the pedagogical practices and methods that allow one to acknowledge the role of material culture in human learning and activity. The second part of the paper gives some details of the concept of the Virtual Design Studio (VDS). Virtual Design Studio practices highlight how individuals shared and constructed design knowledge within these distributed design processes and how virtual environments can support these design processes. The last parts of the paper show two different design experiments which were carried out in real-life and distinct environments. I will use these cases to illustrate some key ideas of Virtual Design Studios (VDS): 1) the elementary level students' architectural design case highlight the conceptual and material aspect of design and 2) the university students' "Conference Bag Designing" emphasize the participatory and user-centred design. To develop virtual design studio practices, we had the following aims;

- To analyze and develop learning by collaborative design model (LCD).
- To develop and implement authentic and meaningful learning contexts.
- To facilitate creation of shared design ideas.
- To analyze the role of visual and material artefacts in the learning process.

### **LCD as materially embodied social practices**

Learning by design has been used intensively in science and technology education (Hennessy & Murphy 1999, Kolodner 2002, Roth 1998). Drawing on research on design expertise as well as knowledge creation approaches, together with my research team and our collaborators, I have developed the Learning by Collaborative Designing (LCD) model to facilitate design processes and students' design process (see Seitamaa-Hakkarainen, Lahti & Hakkarainen, 2005; Kangas, Seitamaa-Hakkarainen & Hakkarainen 2007). The LCD model depicts the design process as spiral and iterative in nature, since it approaches satisfactory design iteratively through successive design cycles involving conceptual, visual and material aspects. The model should not, however, be understood as a description of, or rigid prescription for specified design stages, but merely illustrating the relations between elements of the collaborative design process. The centre of LCD -model is distributed expertise and collaboration (see Figure 1).

The idea is that all participants (design students, users and various stakeholders) are working to develop the shared design object by sharing their expertise socially. The model emphasizes collaboration in all phases of the design process by creating shared design contexts, analyzing design constraints together, collecting and sharing new knowledge and providing feedback for the design ideas and artefacts that have emerged. The process starts with all participants performing a joint analysis of the design task or design context. In this phase, the external domain experts and potential end users have an important task to help students to define the diverse cultural, social, psychological, functional and emotional aspects essential to the design of the product. During the outlining of the design constraints and sometimes conflicting issues that

have an effect on the design process and its requirements need to be taken into consideration. By acquiring deepening knowledge, sharing that knowledge socially, producing varying design ideas and evaluating those ideas, the design process progresses forward cyclically. Thus, constant cycles of idea generation, and testing of design ideas by visual modelling or prototyping, characterize the process.

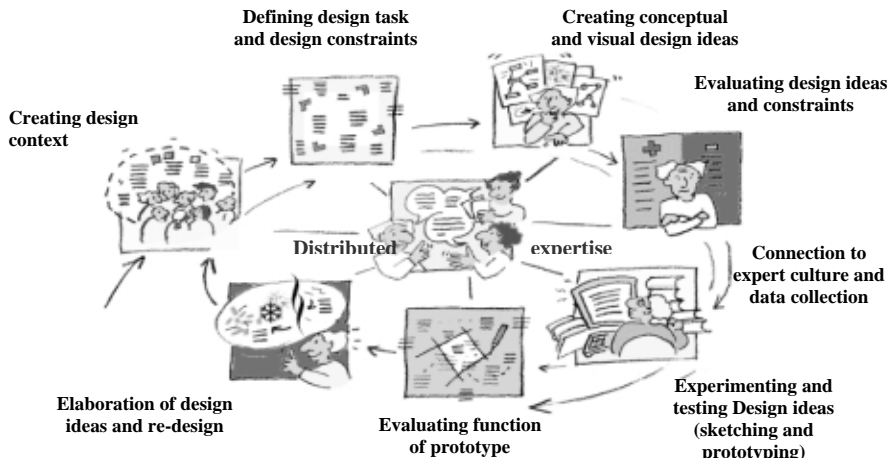


Fig. 1 Learning by Collaborative Designing (LCD) model.

The LCD model can be applied to collaborative designing to facilitate participants' interaction processes in developing design ideas and sharing their expertise through technology-enhanced learning environments (Seitamaa-Hakkarainen & al., 2005). Collaborative technology provide tools for sharing conceptual and visual design ideas as well as a medium for the collaborative construction of design object (Maher, Simoff & Cicognani, 2000). Through virtual designing, future professionals, and even elementary level students, can get acquainted with the tools and advanced practices of designing already during their education (Kvan 2001). However, technology as such does not automatically change educational practices; teachers' or other supporters' deliberate effort are needed to develop new pedagogical and social infrastructure. LCD is not only about pedagogical processes but defines certain social practices as well. Pursuit of design problems, developing design ideas, and defining design constraints are *social practices* that need to be grounded in an activity system; cultivated, exercised, and crystallized within a community. Thus, in order to elicit in-depth learning, design activities need to involve processes of crossing multiple boundaries, such as a) creatively merging individual and collective efforts, b) embodying conceptual ideas in the design of concrete, material artefacts, and c) cross-fertilizing knowledge practices typical for educational institutions with those of professional communities.

### Collaboration in virtual design studio practices

In general, *design studio practises* are commonly used to describe individual as well as collaborative design learning and teaching methods. Design studio is expected to provide an authentic and meaningful learning environment for design learning. Only recently, collaborative designing has begun to receive emphasis in design education. Therefore, there is a need for developing new theories, artifacts, and practices that account for and potentially impact design collaboration in educational settings (Bucciarelli 2001). From the socio-cultural approach, facilitating collaborative designing process means taking into account the object-oriented



activity and the mediating artifacts. The object is a design task or problem that the participants are working with and that is developing and changing.

The term *virtual design studio* refers to a technology enhanced learning or a set of web-based resources that allow designers separated by time and space to work with digital materials (Maher et al., 2000). Virtual design studio can be seen as *digital design media* including virtual learning environments as well as different digital tools such as CAD/CAM applications, but it also can be seen as a digital media which *materializes designs* – for example digital design fabrication or mixed-reality technologies that allow visualization, modelling, and manipulation of collaboratively designed artefacts. The expansion of the use of virtual designing has changed the role of the computer toward a medium through distributed participants can collaborate (Maher et al., 2000). Virtual learning, which allows the sharing of expertise and competencies, is becoming more common in all levels of education. In educating future designers, virtual design studios that allow participants separated by time and space to work with shared design objects are likely to have a significant role (Kvan 2001, Maher et al., 2000).

The basic requirement for collaborative construction of the design object is that students' solve the authentic and challenging design tasks. The successful collaboration is based on open-ended and authentic design tasks that allow students to confront the multidisciplinary or user-center characters of design practice (Murphy & Hennessy 2001, Cross 2007, Seitamaa-Hakkarainen et al., 2001). In traditional design projects, there is usually a severe division of labor, and the end user of the product seldom takes part in the design process. Thus, the problem in many design projects is that user participation is commonly based only on users' described experiences and their willingness to test or evaluate finished products rather than being involved in actual processes from the very beginning of designing. Nevertheless, there is a great need for change from designing *for* users to designing *with* users. VDS can facilitate students' collaborative projects with potential end users and different domain experts when face-to-face meetings are quite expensive and difficult to organize. The social practices related to participatory and user-centre designing can be seen as key competences needed to be trained during design education. It is crucially important to search for knowledge concerning the user's needs in order to make the process successful. This knowledge helps to create the design context, specify design constraints, and foster the iterative development of a given design. User involvement from the very beginning of the process is essential due to the dynamic nature of the design context and its evolving goals. Creation of close communities for sharing designers and users' experiences may enable co-configuration of the designed products.

The technical infrastructure of the present VDS projects was provided by Future Learning Environment (FLE), Knowledge Forum (KF). The central aspect of all virtual learning environments is a common working space for the students; a database that consists mainly of the knowledge produced by the students and teacher. The knowledge of the shared database is in a text and/or graphic format. The database of the learning environment saves all the stages of the design process beginning from the initial design ideas and ending with the final solutions. FLE and KF also provide sophisticated tools especially for collaborative designing and visualizing.

A networked learning environment called Future Learning Environment is an open source environment used in 50 countries. In this project, FLE software, available at <http://fle3.uiah.fi>, provided a distributed database for collaborative designing (Leinonen, Mielonen, Seitamaa-Hakkarainen, Muukkonen & Hakkarainen, 1999; Leinonen, Kligyte, Toikkanen, Pietarila & Dean 2003 ). The Media Laboratory, University of Art and Design Helsinki developed the FLE system in collaboration with the Department of Psychology, University of Helsinki. FLE offered tools for participatory designing, so that multiple actors can



asynchronously work and communicate in the networked learning environment. FLE3 is the third version of FLE including knowledge building (discussion) and jam session.

KF learning environment was developed at University of Toronto and it is based on Bereiter's and Scardamalia's knowledge building pedagogy (Bereiter & Scardamalia 2003). The Knowledge Forum database consists of views and notes. A view is a kind of pictorial diagram, and it may contain thematically connected notes, scanned drawings, photographs and links to other views. Figure 2 represents KF view and open note.

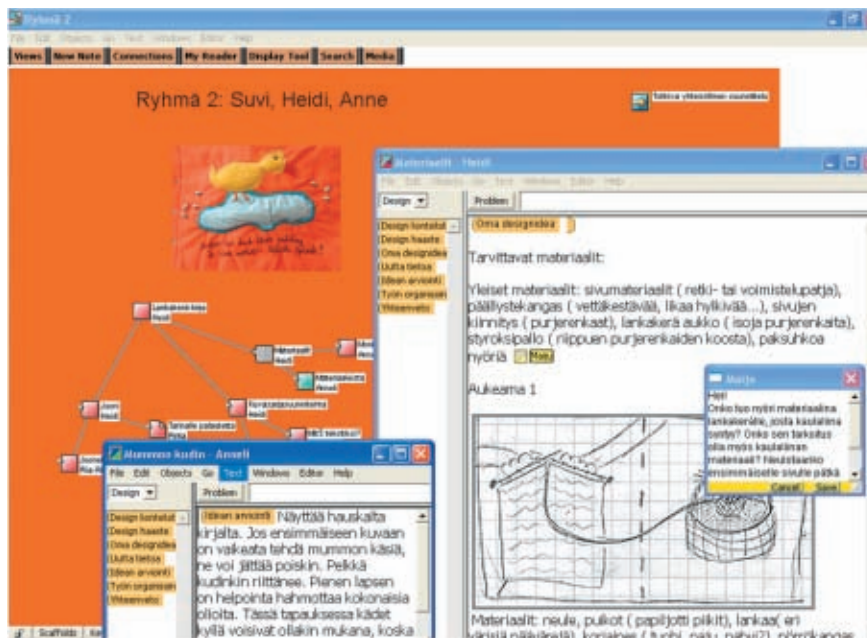


Fig. 2 KF view and open note. In the following sections I will introduce the implementation of elementary level students in the “Architecture Project” as well as the university level collaborative design project (“Designing Conference Bags”) conducted in the textile teacher students education. The architecture project highlights the authentic design problem and the variety of conceptual and material aspects in designing. The university students’ collaborative project depicts the user’s participation for the collaborative design activities.

### Engaging elementary level students in design practices

In the following, the purpose of this section is to introduce the design and implementation of “Architecture Project: City Plan, Home and Users -- Children as Architects” that engaged elementary students in collaborative inquiry and designing. The aim of the project was to engage pupils in creating both new conceptual and material artefacts in collaboration with one another. The general objective was to examine how pedagogical practices supporting Learning by Collaborative Designing (LCD) are implemented in elementary-level education. The other central objective was to explore LCD by considering how material and conceptual artefacts are developed in parallel. The design experiments were an effort to foster students’ collaborative designing through having students work simultaneously with conceptual and material artefacts

and promoting both “hands on” and “minds on” approaches among students. Consequently, the projects to be described relied on technological infrastructure provided by the Knowledge Forum (KF) environment. When design is understood to be dependent on materially embodied \*\*, it follows that real facilitation of learning requires:

- a) Engaging students in solving complex problems which come from outside of the educational institution and integrating many school subjects;
- b) Focusing inquiries on parallel work with material and conceptual artefacts;
- c) Initiating encounters and producing collaboration between students and experts.

“Architecture Project” was designed together with the class teacher and it took place in her classroom in Laajasalo Elementary School, Helsinki, Finland, in 2005. There were 31 grade 6 students. An interior architect visited the class regularly and represented expertise in architectural design. The teacher was responsible for the execution of the project. During the Architecture Project, the students worked in “home teams” (four students in a team) to produce knowledge for each teams’ views of KF as well as for shared views of the whole class. The Architectural Project lasted approximately 19 weeks and it took approximately 45 lessons, about 2-3 hours a week.

The starting point of the Architecture Project was an authentic and real problem: to design apartment buildings for various user groups at a building site planned by the City of Helsinki. In order to get the students into a design mode, students were engaged in design-oriented knowledge practices in terms of investigating the building design of their own neighborhoods. Accordingly, they were asked to select a well or badly designed apartment building or duplex from their neighborhood, justify their selection (why was the house interesting to them), and make their assessment concerning characteristic of design. Working towards that end, they drew pictures as well as constructed written explanations justifying their design evaluations. Furthermore, various aspects of designing houses or apartment and associated design constraints were discussed in KF. Before starting their actual architectural designing, the students were oriented toward city planning and they reflected on how to investigate and study the building or construction processes.

The design process was started by creating a shared concrete Environmental Model of the building site. The corresponding KF view (named Environmental Model –view) worked as a shared space for each teams’ planning sessions. In the Environmental Model view, students conducted calculations regarding the permitted building volume and calculations of gross floor volume. They also set up their first design goals. Figure 3 shows the Environmental Model view, each team’s specific building site and calculation notes.

The student teams reflected on what issues need to be taken into consideration in the construction design: soil, map, the size and location of the building site, pile work, traffic, water plumbing and electric wiring, strength calculation, and budget. The building site was divided into seven parts and each team was asked to design its’ own particular apartment building. The building sites were different size and shape. Subsequently, student teams familiarized themselves with their own building site and regulations regarding city planning. Central concepts, such as maximum permitted building volume, the height of eave (i.e., height of roofs), and massing became familiar. During massing and composition it was essential to take into consideration, among other things, the effects of sun, wind, traffic, sounds, and building technology. The city plan model, calculation of gross floor volume, scale drawings and scale models were constructed and loaded to KF’s database as pictures and texts.

When reflecting on the effects of sun, wind, traffic, sounds, and accessibility, it was decided that each group would adopt a special design challenge regarding its own house. According to the design challenges, the teams’ buildings being designed were named as Eco House, Sound House, Water and Wind House, Green

House, Community House, Apartment House, and Accessibility House. Later during the spring the student teams visited and familiarized themselves with their factual building site under guidance of the professional architect. The student-team reflected on, analyzed, and elaborated the purposes of their house.

The total number of views created during the Architectural Project was nine. The teacher created two shared views (whole classroom views) used by all the teams and each team had their “own house” views, which were named according to their special user group or some special challenges, for example, Accessibility house (for disabled people), Ecological house (especially considered ecological aspects for example recycling) and Sound House (special effects of acoustics). Collaborative knowledge practices were formed during the process and the KF database was gradually built. Students discussed their designs within and between teams. Face-to-face and networked learning environments complemented one another.

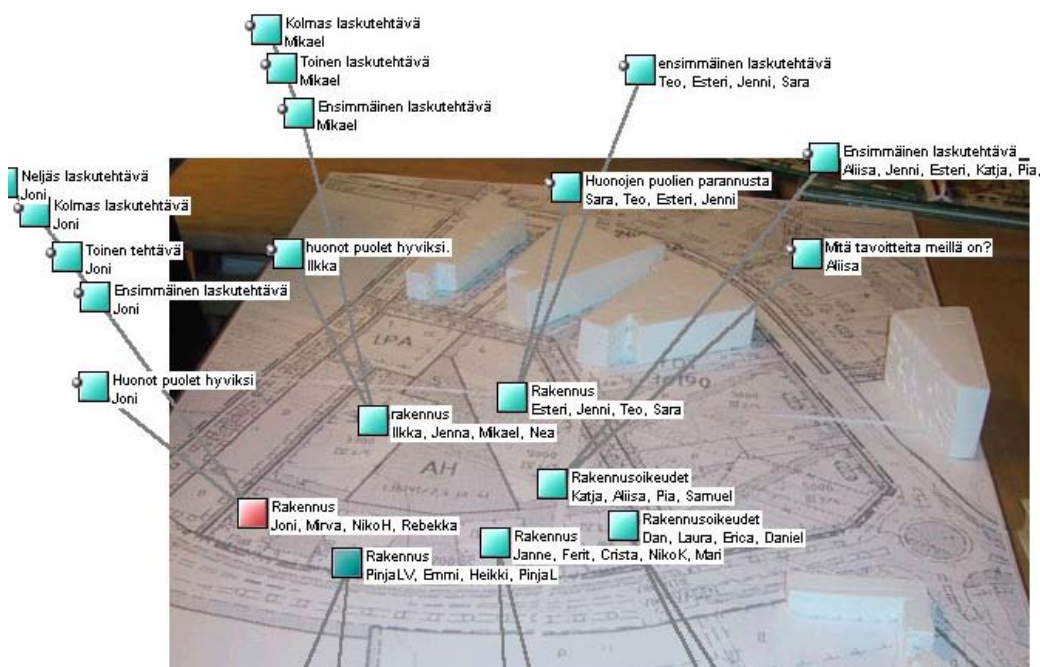


Fig. 3 The Environmental Model –view with the students notes (title of the notes and author(s) of the notes are in Finnish) .

According to the LCD model the architectural design process started with all participants performing a joint analysis of the design context and design constraints. These phases were facilitated by the teacher and architect by creating two shared views mentioned above as well as by designing special tasks for students i.e., analysis of neighborhood apartment buildings. Students needed to consider together within teams different kind of aspects related to building site: traffic, effects of sun, permitted building volume etc. All of them were real and important constraints related to the real-life architectural design context and requirements for permitted buildings. During the framing of this design context, students learned to understand various, sometimes contradictory, factors that are involved in the architectural design process.

The cyclical and spiral nature of architectural design process actualized when the students were producing their shared design ideas (conceptual artefacts) concerning the buildings and while they evaluated

and negotiated their design ideas together with the architect. The design ideas were obtained by producing many kinds of visual sketches: from rough draft to detailed floor plans. The efforts of the LCD model were organized toward developing conceptual design ideas embodying and explicating those, and giving the ideas a material form as prototypes or different kinds of scale drawings and models. During construction designing, the participants created several sketches and drawings of floor plans and facades. The purpose of these sketching activities was to understand the difference between a sketch and final drawing. Thus, constant cycles of idea generation, and testing of design ideas by visual modelling and prototyping, characterized their architectural design process.

Further, during advancement of the Architecture Project, it was essential to master calculations of area and various measures regarding buildings. As stated previously, the building sites were different size and shapes and it was considered very difficult if the form of building site was not rectangular or square. Moreover, while working with calculations needed for construction, students were constantly transforming numbers from one scale to another. Students were also guided to think of measures from the perspectives of a person using the building, moving from one room or area to another, and living within an apartment. Space needed for movements, external doors, stairs, and elevators had to be taken into consideration before starting to work with floor plans. While measuring, the students also used information about their own dimensions. These kind of architectural knowledge practices (calculating areas, transforming different scales in different drawings, drawing floor plans and façades) were very challenging activities (see Figure 4).



Fig. 4 Different kind of sketches of the Sound House and measuring by standing on a table.

### User-centre designing in higher educational level

As stated in the introduction, we have conducted a series of design experiments in a higher educational level. The series of three design experiments build up on each other and they are reported in different design journals and they were part of Henna Lahti's doctoral dissertation (Lahti, 2008). The first virtual design studio experiment was the 'Clothing-design Project for Premature Babies'. We were interested in how members of design teams develop shared design ideas and organize their collaborative activity within the network environment (Lahti, Seitamaa-Hakkarainen, & Hakkarainen 2004). In the second experiment, Designing Conference Bags for conference goers, the starting point was to investigate user-centre and participatory designing in VDS. Students designed Conference bags together with conference goers (Lahti, Seitamaa-Hakkarainen & Hakkarainen 2003). In the third virtual design studio experiment, we looked for means of integrating support of domain experts as a part of VDS (Seitamaa-Hakkarainen, Lahti & Hakkarainen 2005). In all the design situations the students worked in three- or four-person design teams, both face-to-face and virtually. However, the virtual communication differed between the design situations: the first design situation was based on peer communication within the design teams. In the second design situation, the design teams shared their design process with the intended end users of the product, and the third one required virtual communication between the design teams and domain experts (Seitamaa-Hakkarainen, Lahti, & Hakkarainen, 2005). In general, there were four main roles, which we wanted to support in VDS:

- 1) To actively define the design context and design constraints
- 2) To search and share deepening knowledge; to consider both the visual and the technical design elements of the product
- 3) To help students develop visual and material design ideas and provide them with evaluation and feedback – not only from the course leader but from users or experts
- 4) To engage students to understand the LCD model and to develop scaffolds which facilitated the design process.

Moreover, making a prototype was crucial in all design experiments. All prototypes were tested by the potential end users of the product, and the feedback from prototype testing situations contributed to the progress of design processes. The first design situation differed from the others in that each team member designed his or her own prototype; after testing, each design team selected one or more designs for serial production. In the second and third design situations, team members designed prototypes together (Seitamaa-Hakkarainen, Lahti & Hakkarainen, 2005).

The conference-bag design project took place at the University of Joensuu, Savonlinna Department of Teacher Education. The participants of the study were students in the first year of a training program for textile teachers (N=24) and frequent conference-goers (N=8), who volunteered for this project. The participants worked in six design teams, each team consisting of four students and one user. The students were instructed to intensively collaborate within their own design team and to gain further insight from users of the product ((Lahti, & al., 2003). In this project, a networked learning environment called Future Learning Environment (FLE2) was used. FLE2 was expected to help participants in the development of their project by providing spaces and tools for collaborative construction of digital artifacts. The system provided tools for discussing ongoing design processes as well as sharing visual design ideas. All messages within a project were posted to the shared space, and were available to all participants. During the project, the students received some background information, such as a design brief, EuroCSCL Conference www pages, and research articles concerning participatory design in general. Moreover, pictures and example



products representing the various kinds of conference bags were included in the FLE2-course information context (Lahti & al., 2003).

Participatory design, based on the idea of giving knowledgeable users an important role in the design process, can overcome this tendency; it engages students in problem-structuring as well as with in-depth analysis of design constraints that facilitate expert-like design practices. In other words, in the context of participatory design, the user is considered to be a collaborator with the designer (Sanders, 2002). It is argued that everyone possesses design ability, and therefore users could also take a greater role in design and decision-making processes (Cross, 1995; Sanders, 2002). Furthermore, communication between designers and users can take place in a virtual environment (Maher et al., 2000). In such a situation, however, the possibility of misunderstanding arises. For example, misunderstandings between a designer and user can be due to lack of common product presentation knowledge. This requires that students are able to conceptualize and visualize their meaning clearly.

The Conference Bag design project provided an opportunity for undergraduate students of textile teaching to explore a design project in collaboration with the intended users of the designed product. From the students' standpoint, it was challenging to treat contradictory information received from several users and to find optimal design solutions. Thus it is important to distinguish users' needs from users' preferences: users' preferences within a user-group are neither uniform nor constant. Unlike his or her individual preferences, the user's needs may be consistent with the fellow users' within the context of a use-situation. However, any design project requires a parallel analysis of the functional, expressive, and aesthetic needs of the intended users (Lamb & Kallal 1992). Our analysis also revealed that the users appeared to emphasize functional consideration related to their feedback or provided design ideas (Lahti & al., 2003).

To conclude, some kinds of design knowledge can be derived only from users' previous experiences. Nevertheless, the users do not state all their needs and experiences explicitly. Thus, it is important to include users as a part of the design team from the beginning of the project. The users participation in design process could facilitate students design process in many ways: (1) to reflect on needs and potentials of the product, (2) to consider proposed design visual and technical elements, (3) to recommend different functional solutions, and (4) to evaluate proposed prototypes (Lahti & al., 2003).

## Discussion

The collaborative virtual design studio is different from traditional design studio learning. The differences between traditional design studio learning and virtual design learning are appraised in collaboration between participants, in the creation of sharable and understandable externalizations and in the organization of the design process. Learning by Collaborative Designing provides novel possibilities for developing the processes of learning and instruction in design education. Students from elementary to university level education can be guided to engage in design-based collaborative inquiries in computer-supported contexts. A central aspect of the present approach was to explore collaborative design with special focus on the participants' parallel pursuit of material and conceptual artefacts. Rather than focusing on autonomous classroom activities isolated from the surrounding social and cultural environment (see Engeström, Engeström & Suntuio 2002), the present studies involved interactions between students and expert cultures as well as concrete design work under the guidance of a professional designer or interaction with end users. Such boundary encounters can be considered to be an essential aspect of innovative knowledge practices.

The purpose of the projects was to examine how collaborative designing may be used to facilitate learning in the process of developing and elaborating shared design artefacts. An engagement in such

activities involves working with ill-defined problems; these arise in authentic situations often ones never before encountered; thus addressing them fosters the development of competencies for knowledge creation. The overall projects were supported by technology-enhanced learning environments. Experiences of the present projects testified to the versatility of virtual designing. The visual organization of ideas within KF's shared space allowed the participants to represent material artefacts that were examined or created by them. While technology-enhanced learning environments provide tools for creating, sharing, discussing, and advancing textual documents, the special challenge is to develop mixed-reality technologies that allow visualization, modelling, and manipulation of collaboratively designed artefacts. Such technologies are likely to enhance the potential of learning distributed across students, professional designers, and agents representing various user communities.

## References

- Akin, Ö. (1986). *Psychology of architectural design*. London: Pion.
- Bereiter, C. (2002). *Education and Mind in the Knowledge Age*, Erlbaum, New Jersey.
- Bereiter, C., & Scardamalia, M. (2003). Learning to work creatively with knowledge, in E. de Corte, L. Verschaffel, N. Entwistle, & J. van Merriënboer, (eds.), *Unravelling Basic Components and Dimensions of Powerful Learning Environments*. EARLI Advances in Learning and Instruction Series.
- Brereton, M. (2004). Distributed cognition in engineering design: Negotiating between abstract and material representations. In G. Goldschmidt & W. L. Porter (Eds.), *Design representation* (pp. 83-103). London: Springer.
- Bucciarelli, L. L. (2001). Design knowing and learning: A socially mediated activity. In C. M. Eastman, W. M. McCracken & W. C. Newstetter (Eds.), *Design knowing and learning: Cognition in design education*. (pp. 297-314). Amsterdam: Elsevier Science.
- Cobb, P., Confrey, J., diSessa, A., Lehrer, R., & Schauble, L. (2003). Design experiments in educational research. *Educational Researcher*, 32(1), 9–13.
- Cole, M. (1996). *Cultural psychology: A once and future discipline*, Harvard University Press, Cambridge.
- Cross, N. (1995). Discovering design ability. In R. Buchanan & V. Margolin (Eds.) *Discovering design: Explorations in design studies* (pp. 105-120). Chicago: University of Chicago Press.
- Cross, N. (2007). From a Design Science to a Design Discipline: Understanding Designerly Ways of Knowing and Thinking. In M. Ralf *Design Research Now. Essays and Selected Projects*. Birkhauser pp. 41-53
- Edelson, D. C. (2002). Design research: What we learn when we engage in design. *Journal of the Learning Sciences*, 11(1), 105-121.
- Engeström, Y., Engeström, R., & Suntio, A. (2002). Can a school community learn to master its own future? An activity theoretical study of expansive learning among middle school teachers, in G. Wells & G. Claxton (eds.), *Learning for life in the 21st Century. Sociocultural perspectives on the future of education*, Blackwell, Cambridge, MA, 211-224.
- Fischer, G., Giaccardi, E., Eden, H., Sugimoto, M., & Ye, Y. (2005). Beyond binary choices: Integrating individual and social creativity. *International Journal of Human- Computer Studies*, 63, 482-512.
- Goel, V. (1995). *Sketches of thoughts*. Cambridge, MA: MIT Press.
- Hakkarainen, K., Palonen, T., Paavola, S. & Lehtinen, E. (2004). *Communities of networked expertise. Professional and educational perspectives*. Oxford: Elsevier.
- Hennessy, S. & Murphy, P. (1999). The Potential for Collaborative Problem Solving in Design and Technology, *International Journal of Technology and Design Education*, 9, 1-36.
- Hutchins, E. (1995). *Cognition in the wild*. Cambridge, MA: MIT Press.
- John-Steiner, V. (2000). *Creative Collaboration*. New York: Oxford University Press
- Kangas K., Seitamaa-Hakkarainen P. & Hakkarainen K. (2007). The Artifact Project - History, Science And Design Inquiry in Technology Enhanced Learning At Elementary Level. Special Issue of Research and Practice in Technology Enhanced Learning Vol 2/3. 213 – 237.

- Kolodner, J. (2002). 'Facilitating the Learning of Design Practices: Lesson Learned from an Inquiry in Science Education', *Journal of Industrial Teacher Education*, 39 (3), 1- 31.
- Kvan, T. (2001). The pedagogy of virtual design studios. *Automation in Construction*, 10, 345-353.
- Lahti, H. (2008). Collaborative Design in a Virtual Learning Environment. Three Design Experiment in Textile Teacher Education. Department of Home Economics and Craft Science Research Reports 17. Helsinki: Helsinki University Print
- Lahti, H., & Seitamaa-Hakkarainen, P. (2005). Towards participatory design in craft and design education. *CoDesign*, 1(2), 103-117.
- Lahti, H., Seitamaa-Hakkarainen, P., & Hakkarainen, K. (2004). Collaboration patterns in computer supported collaborative designing. *Design Studies*, 25(4), 351-371.
- Lahti, H., Seitamaa-Hakkarainen, P., & Hakkarainen, K. (2003). Piloting participatory designing within a collaborative learning environment. *Journal of Interactive Learning Research*, 14(2), 185-207.
- Lamb, J. M., & Kallal, M. J. (1992). A conceptual framework for apparel design. *Clothing and Textiles Research Journal*, 10(2), 42-47.
- Latour, B. (1999). *Pandora's hope*. Cambridge, MA: Harvard University Press.
- Latour, B. (2005). *Reassembling the social: an introduction to actor-network-theory*. Oxford: Oxford University Press.
- Leinonen, T., Mielonen, S., Seitamaa-Hakkarainen, P., Muukkonen, H., & Hakkarainen, K. (1999). FLE – Tools Prototype: A www-based learning environment for collaborative knowledge building. *Proceedings of ENABLE99 (Enabling Network-based Learning)*, June 2-5, 1999 Espoo, Finland.
- Leinonen, T., Kligyte, G., Toikkanen, T., Pietarila, J., & Dean, P. (2003). *Learning with collaborative software – a guide to Fle3*. Helsinki: University of Art and Design, Media Lab.
- Maher, M. L., Simoff, S. J., & Cicognani, A. (2000). *Understanding virtual design studios*. London: Springer.
- Margolin, V. (1997). Getting to know the user. *Design Studies*, 18(3), 227-236.
- Murphy, P., & Hennessy, S. (2001). Realising the potential – and lost opportunities – for peer collaboration in a D&T setting. *International Journal of Technology and Design Education*, 11(3), 203–237.
- Paavola, S & Hakkarainen, K. (2005a). The knowledge creation metaphor – An emergent epistemological approach to learning. *Science & Education*, 14, 537-557.
- Perry, M., & Sanderson, D. (1998). Coordinating joint design work: The role of communication and artefacts. *Design Studies*, 19(3), 273-288.
- Roth, W-M. (1998). *Designing Communities*, Kluwer Academic Publisher, Boston.
- Sanders, E.. (2002). From user-centered to participatory design approaches. In J. Frascara (Ed.) *Design and the social sciences: Making connections* (pp. 1-8). New York: Taylor & Francis.
- Seitamaa-Hakkarainen, P., Raunio, A-M., Raami, A., Muukkonen, H. & Hakkarainen, K. (2001). Computer support for collaborative designing. *International Journal of Technology and Design Education*, 11, 181-202.
- Seitamaa-Hakkarainen, P. (2000). The weaving-design process as a dual-space search. Helsinki: University of Helsinki, Department of Home Economics and Craft Science, Research Report 6.
- Seitamaa-Hakkarainen, P., & Hakkarainen, K. (2000). Visualization and sketching in the design process. *The Design Journal*, 3(1), 3-14.
- Seitamaa-Hakkarainen, P., Lahti, H., & Hakkarainen, K. (2005). Three design experiments for computer-supported collaborative design. *Art, Design & Communication in Higher Education*, 4(2), 101-119.
- Valkenburg, R., & Dorst, K. (1998). The reflective practice of design teams. *Design Studies*, Dear Andrew,
- Wertsch, J. (1998). *Mind as Action*. Oxford University Press, Oxford.









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## COLLABORATIVE DESIGNING OF A TEXTILE CRAFT WORKSHOP IN A NETWORKED LEARNING ENVIRONMENT

### abstract

*The purpose of the present study was to analyze how teacher students collaboratively design workshops in a networked learning environment and how the networked learning environment supports the designing of a workshop. The data used in this paper were collected during a design-project, where four teacher students used the FLE –environment without face-to-face interaction with the teacher. However, meetings with the client, Savonlinna Provincial Museum and the students themselves were held. The purpose of this project was to design and execute a craft workshop for elementary school children. According to the research results the network learning environment was a good tool for problem solving process and the students used a lot of time organizing their design process. However, they utilized expert knowledge only little. One needs to inquire further as to why the participants did not carry out deeper iterations in their design process and how this could be avoided in the future.*

**keywords:** *collaborative design, craft, network learning environment*

### Collaboration in designing

Designing is generally considered to be a form of complex problem solving (Goel, 1995) and it is an iterative process by nature. Solutions in designing emerge gradually as a process of structuring and restructuring, defining and redefining constraints of designing and generating and testing design solutions. (Goel, 1995). Designing may also be conceptualized as a process of moving in three design spaces, i.e. constraints space, composition space and construction space (Seitamaa-Hakkarainen, 2000).

The term collaboration is used to mean a successful process of designing which has been achieved only by group work. Collaborative designing is understood as active communication and work together on a shared design task, a joint determination of design constraints and equivalent efforts to create a shared design product. (Kvan 2000; Lahti, Seitamaa-Hakkarainen & Hakkarainen, 2003). An essential aspect of professional design process is to share knowledge (e.g. design ideas, interpretations) among members of a design team. Designers also search for and use information from other related disciplines to help them to construct new knowledge of constraints related to the design topic. Social collaboration has a particularly important role during the conceptual phase of designing. (Seitamaa-Hakkarainen, Lahti, Muukkonen & Hakkarainen, 2000). If the artefact being designed is very complex it becomes more and more important that the end user or other domain expert is involved in the design process. Popovic (1999) uses the term participatory design and emphasizes the importance of acquiring relevant information from the end user of the product being designed. The ideal situation is where the end user is one part of the designing team.

Recently, there has been a strong emphasis on the importance of analyzing collaborative design process (Perry & Sanderson, 1998). Collaboration is an essential aspect of professionals' practical activity in the field of modern design. In today's working life the expertise of professionals is needed regardless of

their actual physical location and knowledge can be more important than practical skills. Therefore experts working in one design process can be in different places and collaboration among them and with end users and other domain experts is central to designing. (Kvan, 2001).

In effective collaborative designing team members have to support each other in answering questions and developing ideas. This is also a problem in designing, for creating a shared design understanding is problematic. Thoughts and ideas have to be synchronized and this may cause serious problems in interaction and lead to misunderstandings and uncoordinated actions. (Valkenburg & Dorst 1998). Students who collaborate with their peers are noticed to have more opportunities to generate and elaborate their own descriptions and negotiate shared descriptions. (Hennessy & Murphy 1999).

In collaborative designing organizing the group process is also a major task. Collaboration is dependent on shared object between the group members. Therefore there can be seen three different types of collaboration: 1) *Coordination* means that members are working with their own tasks and there is no shared object involved, 2) *corporation* means that the group members focus on a shared problem and try to negotiate a mutual way of solving it; and 3) the highest form of collaboration called as *reflective communication* meaning that the group members are not only sharing an object but also organizing their collaborative efforts by developing a shared script of joint activities. Different degrees of task sharing (single task collaboration and multiple task collaboration) effect on the nature of collaboration. Single task collaboration is based on each participant's own view over the whole design problem whereas multiple task collaboration means that each group member is responsible for a specific portion of the design. In multiple task collaboration most of the messages are related to management of the project. (Lahti, Seitamaa-Hakkarainen & Hakkarainen, 2004).

Some studies indicate that online interactions in online courses without face-to-face meetings with the instructor are rather perfunctory than in depth. The crucial aspect seems to be the length of the course and the involvement of the instructor. An online course must be long enough to ensure that participating students achieve higher level of processing. In addition, the key factor for successful online learning is forming of a virtual learning community. (Lapointe & Reissetter 2008). Kvan (2001) writes about virtual design studios and reports similar results. Students are given much higher demands on taking responsibility of their planning, self-regulating and self-organizing their design activities and therefore they must not be left without guidance in the design process.

The present paper is based on the assumption that besides concrete product designing, conceptual collaborative designing can be facilitated by networked learning environment. Collaboration is an essential aspect of problem solving and it enhances learning. It makes thinking more explicit and accessible and enables students to construct a joint understanding of tasks and solutions. (Hennessy & Murphy 1999). Conceptual collaborative designing has the same features as concrete product designing (i.e. determining design constraints, producing ideas, evaluating them etc.) so networked learning environment can be used to facilitate designing of a conceptual artifact. The purpose of the present study was to analyze how small group of students design collaboratively workshops in a networked learning environment. The general research questions were 1) how students design workshops in collaboration in a networked learning environment and 2) how the networked learning environment supports the collaborative designing of workshops.

### Research procedure and methods of data analysis

The data discussed here was collected during a 10-week design project course called Virtual Design Studio where four textile-teacher students used the FLE –environment throughout the course without face-to-face

interaction with the teacher. The students themselves had no organized meetings with each other; however they met informally before the actualized workshop. The purpose of this project was to design and execute a craft workshop for elementary school students at the Savonlinna Provincial Museum. Workshops were arranged after the school students had taken part in a thematic tour at the Olavinlinna castle. The theme of the tour was Aleksandr Suvorov, a Russian generalissimus who has been very important person in regional history and Olavinlinna Castle. The craft workshop was related to the same theme and they both together formed a united whole.

The workshop was designed and carried out by a group of four textile-teacher students from the University of Joensuu. The entire design project consisted of three basic stages: 1) Determining the design constraints, the preliminary designing of the workshop including the negotiations with the personnel of the Savonlinna Provincial Museum (i.e. customer), 2) testing of the workshop at the Savonlinna University Practice School and 3) the execution of the workshop on the EU-day at the Savonlinna Provincial Museum. The project was carried out almost entirely in Future Learning Environment (FLE) except two negotiating situations with the customer, Savonlinna Provincial Museum. Students wrote a learning diary every two weeks about their designing and collaboration processes. The learning diary was semi-structured in nature and it asked information e.g. about how much time the students used in designing, where they worked and what they were doing (talking, writing, sketching etc.). At the end of the course two questionnaires were also collected. These questionnaires were designed to give information about how students participate in computer supported collaborative learning (CSCL). The questionnaires consisted of structured statements and open questions.

The knowledge building database that has been discussed in this paper consisted of 80 knowledge-building notes involving over 230 design statements. The term note has been used to mean writings each student has written on the database and the term statement to mean each meaningful part in the notes. I.e. each note can consist of one or more design statement. The present paper focused on analyzing the database notes written by students.

### Research data analysis

FLE's Knowledge Building database was analyzed using SPSS Data Editor to examine the nature of students' design process. The students' notes posted to the FLE-Tools database were classified to several variables that represented essential aspects of collaborative design and that were modified to take into consideration that there was an educational entity being designed rather than a product. This is seen mostly in design context category which consists of essential aspects of workshops and points that rose from the FLE discussion (i.e. workshop participant, workshop context, product function and resources). The classification schemata consisted of design process categories 1) *design thinking* and 2) *design stage*, design content categories 3) *constraints*, 4) *composition* and 5) *construction design*. And additionally the 6) *information flow* was analyzed creating an own category. The classification schemata as for design process (design thinking and design stage) and information flow categories are modified from earlier collaborative design research (see e.g. Lahti et al. 2004). Design content categories are founded on the classification of Seitamaa-Hakkarainen's (2000) description of design process. Figure 1 presents the classification schemata used in this study.

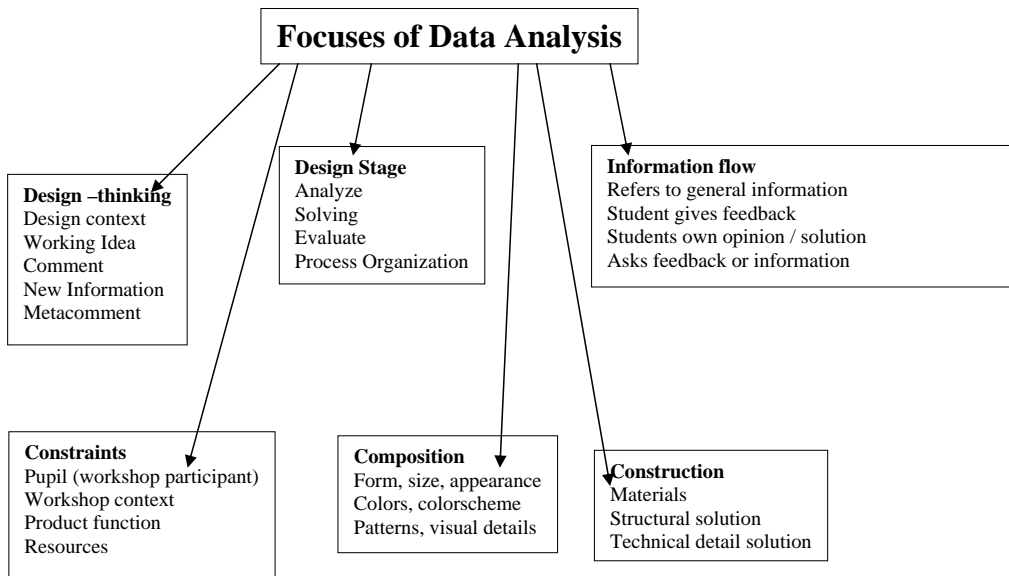


Fig. 1 The classification schema of the design process

The design-thinking category consists of specifying *design context* (what is being designed and where), working idea (ideas of what will be done), *comment* (assessing the ideas, opinions, thoughts etc.), *new information* (knowledge about the project or useful information about the design object) and *metacomment* (comments on process itself).

The design stage category was used to assess how much each student participated in each stage. This category consists of *analyzing* (*construing design context, design ideas etc.*), *solving* (proposing ideas and solutions to design problems), *evaluate* (assessing design ideas, solutions, problems etc.), and *process organization* (discussing about process itself and how to continue).

The information flow category was used to assess how the information concerning the design process transferred and what was the information transfer like. This category also tells the depth of collaborative designing of the students at each phase of the design process. This will be discussed later in this paper. The category consists of the following variables: *refers to general information* (the writer refers to information produced outside the project), *student gives feedback* (assessing opinions and ideas of others), *students own opinion* and *asks feedback or information*.

## Results

The purpose of the present study was to analyze how small group of students design collaboratively workshops in a networked learning environment. An examination of FLE's database indicated that overall the students participated in every part of the project (determining the design constraints, the preliminary designing of the workshop, testing of the workshop at the Savonlinna University Practice School and the execution of the workshop). The entire database considered in this study consisted of 236 design statements.

The researcher conducted detailed analysis for each student and examined the nature of the collaborative design process in the project. Based on the analyzed discussions in FLE database three students were active



throughout the project and one was more passive. However, the one more passive student in discussions may have been more active in actual persecution of the workshop, so certain conclusions can not be made about students' roles and activity in general. The number of notes posted by the students varied between 11 and 25.

The nature of the collaborative design process on the project will be discussed below. Table 1 shows the frequencies of information flow category's statements on different classes of design stage category.

Table 1 Design stage and information flow frequencies.

Information flow	Design Stage					
		Analyze	Solving	Evaluate	Process Organ.	Total (f)
	Refers to general information	0	2	1	4	7
	Teacher gives feedback for solution	3	4	7	3	17
	Student gives feedback for solution	3	1	4	4	12
	Students own opinion	40	9	2	14	65
	Asks feedback or information	3	4	6	33	46
	<b>Total</b>	49	20	20	58	147

As seen in the table 1, the number of statements was low in many classes because of the low number of participants (four) in the project. What is remarkable however, and describes the collaborative design process, is the higher number in *analyze* and *process organization* classes of design stage category. Analyzing the collaborative design process, the workshop being designed, ideas etc. students posted mostly own opinions. Closer examination of the statements in this class indicates that students have used a lot of time and effort to analyze the design constraints and ideas. However, this has been mostly analyzing of one's own thoughts and ideas.

Another interesting class in the table 1 is the process organization class. It is seen that students have organized their design process a lot. This indicates what Lahti et al. (2004) have stated that the highest form of collaboration includes not only a shared object but also organization of the design efforts.

The third interesting result seen in the table 1 is the low number of statements in new information category. As the high amount of statements in process organization indicated a high level of collaboration in the project, the lack of new information brought to the process shows that the collaborative design process was shallow. Figure 2 presents the frequencies shown in table 1 in a visual form.

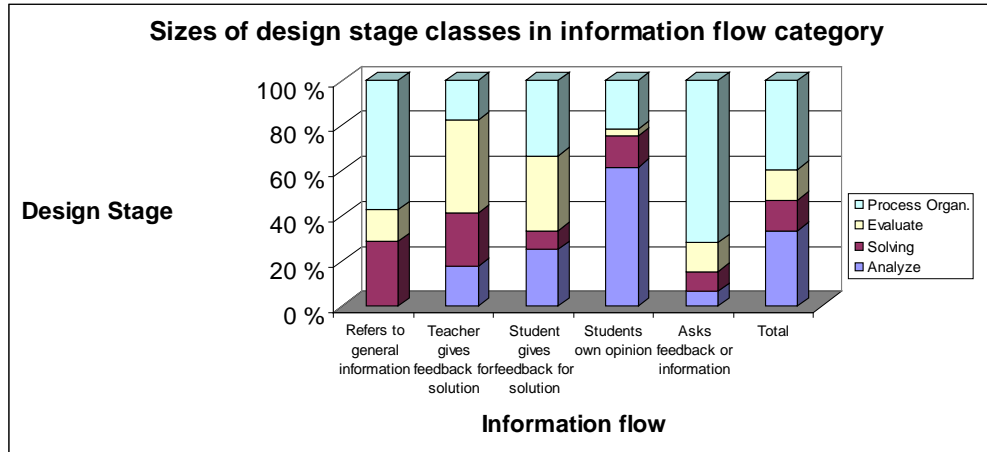


Fig. 2 The proportions of design stage classes in each information flow class.

The general research questions were 1) how students design workshops in collaboration in a networked learning environment and 2) how the networked learning environment supports the collaborative designing of workshops. According to the analyzed data teacher students took part in every part of the collaborative design process. They organized their design process collaboratively which indicates that their collaborative design process was what is called the highest form of collaboration (Lahti et al. 2004). Nevertheless, notable is that based on the FLE discussion database none of the students brought much new, expert knowledge to the design process and the students analyzed mainly their own ideas without developing their ideas together as one collaborative group.

According to Hennessy and Murphy (1999) collaboration is an essential aspect of problem solving and it enhances learning. Based on the analyses of FLE database it can be stated that the network learning environment sustained problem solving process. The networked learning environment used in the described project is designed to provide a distributed database ideal for collaboration and it offers tools for asynchronous work and communication. The teacher students that took part in the described collaborative design project had no formal meetings with each other and had a very different kind of study schedules. Therefore the networked learning environment was an ideal tool for their collaborative design process. However, later analyzing of other collected data will reveal more about the role of the networked learning environment.

## Discussion

According to Seitamaa-Hakkarainen et al. (2000) an essential aspect of professional design process is to share knowledge among members of a design team. Designers should also search for and use information from other related disciplines to help them to construct new knowledge of constraints related to the design topic. The purpose of the present study was to analyze how small group of students design collaboratively workshops in a networked learning environment. Based on the research results the teacher students did not bring much new expert knowledge to the design process. This raises a question of how much did the students actually learn and was the designed object (craft workshop) as good as it could have been. Was the project useful in respect to the work these participated teacher students will do in the future? What kind of scaffolding is then needed to have the collaborative design process deeper? In the described project the

teacher students had to hurry towards the end of the project. One main answer could be providing longer period of time for the process. Similar results and solutions have reported Lapointe and Reisetter (2008).

According to the research results networked learning environment is to some point a good tool for collaborative design and designing a workshop. It allowed the teacher students to work with the shared design process when it was most suitable for them.

The number of students was not too small and in fact it may have been better to have only four students because the distribution of labor became clearer to the teacher students. However, based on the analyzed discussions in FLE database three students were active throughout the project and one was more passive. It can not be said for sure that the one more passive student in discussions was that in the actual persecution of the workshop, so certain conclusions can not be made about students' roles and activity in general.

The time factor was crucial in regard to the success of the project. In the described project students were in a great hurry towards the end of the project. This was because of problems at the communications between the students and the client (Savonlinna Provincial Museum). Students had to make all the necessary preparations in a rush so networked learning environment was too slow for communication. Students had to use more effective ways of communication, i.e. mobile phones. The same kind of result is presented in Hennessy and Murphy's (2001) article: "Models of success are represented in a society and in school which commonly equate ability with independence of mind and speed of solution. Neither of these characteristics is supportive of collaborative learning".

In the FLE database the students had to review both the design process and the executed workshop but based on the statements students had written their reviews rather superficially. There was no evaluation on whether the teacher students had achieved the first design objectives they had determined. The learning diaries that were also collected as research data in the described project may clarify the process in a way that can not be seen in the FLE database because learning diaries may have been written in more reflective manner.

Social collaboration has a particularly important role during the conceptual phase of designing. (Seitamaa-Hakkarainen, Lahti, Muukkonen & Hakkarainen, 2000).

## References

- Goel, V. (1995). *Sketches of thought*. Cambridge, MA: MIT Press
- Murphy, P. & Hennessy, S. (2001). Realising the potential – and lost opportunities – for peer collaboration in a D&T setting. *International Journal of Technology and Design Education*, 11, pp. 203–237.
- Hennessy, S. & Murphy, P. 1999. The Potential for Collaborative Problem Solving in Design and Technology. *International Journal of Technology and Design Education* 9, pp. 1-36.
- Kvan, T. 2001. The Pedagogy of Virtual Design Studios. *Automation in Construction* 10, pp. 345-353.
- Kvan, T. 2000. Collaborative Design: What is it? *Automation in Construction* 9, pp. 409-415.
- Lahti, H., Seitamaa-Hakkarainen, P. & Hakkarainen, K. 2003. Piloting Participatory Designing Within a Collaborative Learning Environment. *Journal of Interactive Learning Research* 14, pp. 185-207.
- Lahti, H., Seitamaa-Hakkarainen, P. & Hakkarainen, K. 2004. Collaboration patterns in computer supported collaborative designing. *Design Studies* 25, pp. 351-371.
- Lapointe, L. & Reisetter, M. 2008. Belonging Online: Students' Perceptions of the Value and Efficacy of an Online Learning Community. *International Journal of E-Learning* 7, pp. 641-665.
- Perry, M. & Sanderson, D. (1998). Coordinating joint design work: the role of communication and artifacts. *Design studies* 19, 273-288.
- Popovic, V. 1999. Product Evaluation Methods and their importance in designing interactive artefacts. In W.S. Green & P.W. Jordan (Eds.) *Human factors in product design. Current practice and future trends* (pp. 26-36). London: Taylor & Francis.

- Seitamaa-Hakkarainen, P. (1997). Composition and construction in Novices' and Experts' Weaving Design. *Techne Serie, Research in Sloyd Education and Craft Science A* (2). Helsinki: Priima-Offset.
- Seitamaa-Hakkarainen, P. (2000). The Weaving-Design Process as a Dual-Space Search. University of Helsinki. Department of Home Economics and Craft Science. Research Report 6.
- Seitamaa-Hakkarainen, P., Lahti, H, Muukkonen, H. & Hakkarainen, K. (2000). Collaborative designing in a networked learning environment. In S. A. R. Scrivener, L. J. Ball & A. Woodcock (Eds.) *Collaborative Design*. London: Springer. (pp. 411-420).

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## THE TOUCH OF CRAFT EDUCATION – FACTORS IN STUDENTS ATTITUDES

### abstract

*The aim of this paper was to study how the comprehensive school students' attitudes in Finnish craft education are based and what are those factors which affect the forming of them. The study was carried out as a qualitative case study and the collecting of the material was performed with the help of individual theme interviews. The study group consisted of six 15-16 year old students, which represented six totally different cases in motivation towards craft education. In the choice of the test person main weight was given to the sex and to negative and positive attitude towards craft education. The artifact to be made in the school lessons and the freedom of choice had the most significant effect on the attitude. Friends, physical abilities, school curriculum and the society values proved to be less significant factors in the forming process of the attitudes towards craft education in this study.*

**keywords:** *craft education, technical work, textile work attitudes, motivation, gender*

### Introduction

The Framework Curriculum Guidelines (NBE, 1994) for the compulsory education describes craft education as a compulsory school subject that offers all-round education, develops manual skills and thinking, and teaches pupils to work. The basic value of craft education has been described as the appreciation of work in respect to ethics, ecology, aesthetics and economy, safe working habits, responsibility, consideration for others and the all-round development of the student. Furthermore, it has been described in the framework curriculum that in planning, making and choosing craft items to be produced, the students should learn to apply theoretical information to practical work. The aim being for students to acquire the essential skills needed to manage their everyday lives. Learning, in its broadest sense, is based on productive activity. The aim of the subject is to learn through a work process where, between the start of an idea and the final result, there is growth in creativity, thinking skills and development of self-esteem. The practical study of craft develops responsibility, initiative, creativity, perseverance and a positive picture of oneself.

Furthermore, the curriculum of craft education (NBE, 1994) specified that technical craft and textile craft should be combined into one subject, taught to both boys and girls over their entire comprehensive school lives. This decision has later aroused much critiques (Kaukinen, 2006; Autio, 1997) and according to The Framework Curriculum Guidelines (NBE, 2004) pupils may be given the change, in their craft studies, to emphasize either technical or textile craft according to their interests and inclinations. Hence, Finnish craft education is in practice divided into technical craft and textile craft. Technical craft is designated as a school subject where students design and make products by using different materials, machines, processes, techniques and tools (Alamäki, 1999). Textile craft focuses primarily on design processes where students design and make clothes and other textiles (Suojanen, 1993). Nevertheless, design and making processes in textile craft are evidently technological processes; there are still less technological contents, processes and systems than in technical craft education (Alamäki, 1999).

As there is no special subject called technology education, the main problem in Finland is that most of the technological contents are taught in technical craft lessons, and according to old traditions, boys select technical craft and girls are taken part just in textile craft lessons. Although in the curriculum it is claimed that technical craft and textile craft should be compulsory for boys and girls in grades 3 – 6, they have to select one of the craft subjects for several practical reasons like timetabling and the number of teachers employed. What's more, even if they could choose shared craft education which contains both craft areas, about 70 % of girls would still choose only textile craft and about 80 % of boys would choose technical craft (Autio, 1997). Based on this segregation, it is clear that boys have more experience in the field of science and technology. This gender-based segregation and falling recruitment for scientific and technological studies is a common phenomenon in all the Nordic countries (Sjøberg, 2002). However, it is a paradox that the break is noticeable in Finland where gender equity has been a prime educational aim for decades.

In everyday language attitude has many different meanings. However, the scientific concept of attitude is hardly the same as its common language everyday counterparts. In common language attitude is quite often used as a counterpart to interest or in some situations motivation. Hence, in this study as a technical term attitude has been treated as a general affective variable, a general arousal experience.

Unlike the terms attitude, interest, and motivation the terms "intrinsic motivation" and "extrinsic motivation" are not used in everyday language. The main idea of intrinsic motivation is that even without extrinsic sources of motivation the organism would be active. Originally Deci (1975) split the motivation into intrinsic and extrinsic motivation. Extrinsically motivated behavior is instrumental in nature. Such actions are performed for the sake of some expected outcome or extrinsic reward or in order to comply with a demand. Intrinsically motivated behaviors on the other hand are engaged in, as Deci expressed it, for their own sake and not because they lead to an extrinsic reward. Later Deci and Ryan (1985) identified four types of extrinsic motivation: external, introjected, identified, and integrated forms of regulation. Moreover, Harter and Jackson (1992) demonstrated that intrinsic-extrinsic motivation must be conceptualized both as a trait and a non trait in order to fully understand children's motivational orientation to school subjects.

Gottfried (1990) used the term academic intrinsic motivation in broad sense to depict a special kind of intrinsic motivation for school learning. Academic intrinsic motivation involves the enjoyment of school learning characterized by a mastery orientation; curiosity, persistence, taskendogeny, and the learning of challenging, difficult and novel tasks.

### **Empirical study**

The aim of this research was to study how the comprehensive school students' attitudes in craft education are based and what are those factors which affect the forming of them. The study was carried out as a qualitative case study and the collecting of the material was performed with the help of individual theme interviews. The interviews were first tape recorded and transliterated. Later on the research data was analyzed by the method of content analysis. Hence, the theoretical background was taken into account; there was any former theory in attitudes towards craft education to be tested. The analysis was carried out through finding out the interesting and essential factors in the attitudes towards craft education. These findings were later classified by the themes and finally reported in the conclusions.

The study group consisted of six 15-16 year old students, which represented six totally different cases in motivation towards craft education. In the choice of the test person main weight was given to the sex and to negative and positive attitude towards craft education. Three boys and three girls took part in the study.

Both groups included one student, who was interested in textile work, one who was interested in technical work and one who was interested in either area of Finnish craft education.

The test persons were named with characteristic expressions:

A boy in textile craft – “individual rationalist”

A girl in textile craft – “aesthetic textile artist”

A boy in technical craft – “relaxed carpenter”

A girl in technical craft – “rebellious”

A boy in either textile or technical craft – “academic theoretician”

A girl in either textile or technical craft – “outsider”

## Research results

The factors behind the attitude of each test person are described in tables. They express those factors which have had most effect (**bold – underlined text**) and those which have had less meaning in the test person’s motivation (**bold or normal text**). The significance of the factors is based on the test person’s direct comments or non direct expressions which have been documented during the interviews.

### A Boy in textile craft – “individual rationalist”

The first test person – “the individual rationalist” reacts neutrally to craft education in general and sees craftsmanship as public utility which facilitates the life. He is moderately gifted himself and he sees the crafts important socially examined but not appreciated enough. He thinks that perhaps the young people are not interested in the handworks therefore. At home crafts are not a special hobby for him and the working has been restricted to drawing in which he was interested much as a child.

According to the research person, many matters affect in attitudes towards craft education but he cannot analyze them in more detail. However especially the significance of the product to be made and the satisfaction from the process is important to him. Relaxed and comfortable working atmosphere is also an important matter. Furthermore, the class environment is significance to the convenience and the classroom should be light and wide enough. A good teacher can wake positive thoughts and feelings on the pupils and according to him the teacher also generally has big significance in the basing of the attitude. Instead the friends do not have much effect on his choices because as a strong character he wants to make independent decisions.

Table 1 Factors behind the attitudes towards craft education of “the individual rationalist”

PERSONALITY	ENVIRONMENT	SOCIAL RELATIONS	SUBJECT CONTENTS
- <b>Talent</b> - <b>Character</b> - <b>Physical abilities</b>	- <b><u>Classroom environment</u></b> - <b>Home environment</b> - Values in society	- <b><u>Teacher</u></b> - <b>Classroom atmosphere</b> - <b>Teacher - Student interaction</b> - <b>Mother and sister</b>	- <b><u>Internal feedback</u></b> - <b>Product /artifact</b> - <b>Process</b> - <b>Evaluation</b> - Freedom of choice

A girl in textile craft – “aesthetic textile artist”

The second test person – “aesthetic textile artist” reacts very positively to craft education and has studied textile work especially profoundly. Already in nursery school she reacted positively to the handwork and now on the secondary school level handwork has become a real hobby to her. She sees herself as a skilful worker which also motivates her further.

None of her friends have any interest in handworks but her grandparents have had big significance because the influence has been positive already since childhood. At home she is encouraged to the handwork and she sees the handworks even as his possible profession of the future. In her opinion, in the handworks the most important factor is an opportunity to the independent choices in regard to working and the product. The classroom has to be large enough so that there will be room for all the pupils. Also materials and tools have a big significance to his motivation. In her opinion, the good teacher must not talk too much but the interaction is important. If it is easy to approach the teacher, a discussion will be more easily created between a teacher and the pupil.

Table 2 Factors behind the attitudes towards craft education of “the aesthetic textile artist”

PERSONALITY	ENVIRONMENT	SOCIAL RELATIONS	SUBJECT CONTENTS
<ul style="list-style-type: none"> <li>- <u>Talent</u></li> <li>- <u>Needs</u></li> <li>- <u>Character</u></li> <li>- <u>Hobbies</u></li> <li>- <u>Career plans</u></li> </ul>	<ul style="list-style-type: none"> <li>- <u>Materials</u></li> <li>- <u>Machines and tools</u></li> <li>- <u>Classroom environment</u></li> <li>- <u>Home environment</u></li> <li>- <u>Group size</u></li> <li>- <u>Nursery school</u></li> </ul>	<ul style="list-style-type: none"> <li>- <u>Teacher</u></li> <li>- <u>Teacher - Student interaction</u></li> <li>- <u>Grand mothers</u></li> <li>- <u>Family</u></li> <li>- <u>Classroom atmosphere</u></li> <li>- <u>Change of teacher</u></li> </ul>	<ul style="list-style-type: none"> <li>- <u>Product /artifact</u></li> <li>- <u>Internal feedback</u></li> <li>- <u>Freedom of choice</u></li> <li>- <u>Process</u></li> <li>- <u>Evaluation</u></li> </ul>

A boy in technical craft – “relaxed carpenter”

For the first time “the relaxed carpenter” became familiar with craft education in the comprehensive school. So the school has served as his first factor which affects an attitude. The test person reacted positively to craft education and already on a lower level of the comprehensive school craft education became his favorite school subject. In his opinion, technical handwork is a comfortable counterbalance to the academic subjects. While working with his hands he can relax and the attention can be paid out of unpleasant matters. From his opinion, evaluation and good numbers are not important in craft education and so it is easier to get an internal satisfaction from the working as well.

The test person is a gifted hand worker and so his interest and his own needs are important to his motivation. The whole school curriculum and -environment have affected an attitude to its part and according to him there must be enough materials and tools must be in good order in the classroom of craft education. The teacher - pupil interaction has also been significant. In the teacher’s company, one has not needed to stress and the help has dared to ask even to stupid questions. However, the final product has motivated him most. The freedom of choice in the planning has increased motivation whenever the product has been personal and come into his own use.



Table 3 Factors behind the attitudes towards craft education of “the relaxed carpenter”

PERSONALITY	ENVIRONMENT	SOCIAL RELATIONS	SUBJECT CONTENTS
<ul style="list-style-type: none"> <li>- <u>Interest</u></li> <li>- <u>Needs</u></li> <li>- <u>Character</u></li> <li>- <u>Hobbies</u></li> <li>- Talent</li> </ul>	<ul style="list-style-type: none"> <li>- Group size</li> <li>- Materials</li> <li>- Machines and tools</li> <li>- Classroom environment</li> </ul>	<ul style="list-style-type: none"> <li>- <u>Teacher</u></li> <li>- Classroom atmosphere</li> <li>- Teacher - Student interaction</li> <li>- Parents</li> </ul>	<ul style="list-style-type: none"> <li>- <u>Product /artifact</u></li> <li>- <u>School curriculum</u></li> <li>- <u>Freedom of choice</u></li> <li>- <u>Internal feedback</u></li> <li>- Process</li> </ul>

A girl in technical craft – “rebellious”

“The rebellious” considers the craft education important because it is an important counterbalance to the theoretical subjects. Her first role model was her grand father and she has been interested in craft education all the way from the child. She works willingly with the bigger machines and with hard materials and does not like to fiddle with small details.

In craft education the atmosphere of the technical work lessons is usually relaxed and the group is smaller than in other subjects. The effect of the curriculum of the school has also been important because the school has offered enough alternatives. The wood-, metal-, and electrical work have belonged to the curriculum. In the doing of the electricity guitar for instance several different skills and materials have been joined. She remembers it as her most agreeable project all. The impressive and valuable product that has been made for her self motivates her greatly but it increases the interest also in other products.

Table 4 Factors behind the attitudes towards craft education of “the rebellious”

PERSONALITY	ENVIRONMENT	SOCIAL RELATIONS	SUBJECT CONTENTS
<ul style="list-style-type: none"> <li>- <u>Needs</u></li> <li>- <u>Interest</u></li> <li>- <u>Physical abilities</u></li> </ul>	<ul style="list-style-type: none"> <li>- <u>Classroom environment</u></li> <li>- <u>Machines and tools</u></li> <li>- Home environment</li> <li>- Materials</li> <li>- Group size</li> </ul>	<ul style="list-style-type: none"> <li>- Classroom atmosphere</li> <li>- Parents</li> <li>- Grand father</li> <li>- Change of teacher</li> <li>- Teacher</li> </ul>	<ul style="list-style-type: none"> <li>- <u>Product /artifact</u></li> <li>- <u>Freedom of choice</u></li> <li>- <u>Internal feedback</u></li> <li>- School curriculum</li> <li>- Evaluation</li> </ul>

A boy in either textile or technical craft – “academic theoretician”

According to “the academic theoretician”, craft education is not an anyhow significant matter in his life. He indeed considers it only as the hobby of a small minority of people. At home the academic values are also appreciated to a considerably higher one. The test person’s thoughts in regard to craft education follow those values and attitudes which are very much from home. He does not either place a value on the crafts or on the vocational education. In his opinion, the high school is absolutely better and the more respected study place.

During his first school years he, however, liked craft education. In that case the product and the freedom of choice were some of the most significant sources of the motivation. When proceeding to more difficult and more challenging work, the skills and the talent were not enough any more and general interest also gradually ended.

Table 5 Factors behind the attitude towards craft education of “the academic theoretician”

PERSONALITY	ENVIRONMENT	SOCIAL RELATIONS	SUBJECT CONTENTS
<ul style="list-style-type: none"> <li>- <b><u>Character</u></b></li> <li>- <b><u>Needs</u></b></li> <li>- <b><u>Interest</u></b></li> <li>- <b><u>Talent</u></b></li> </ul>	<ul style="list-style-type: none"> <li>- <b><u>Home environment</u></b></li> <li>- <b><u>Classroom environment</u></b></li> <li>- <b><u>Machines and tools</u></b></li> <li>- Group size</li> </ul>	<ul style="list-style-type: none"> <li>- <b><u>Parents</u></b></li> <li>- <b><u>Friends</u></b></li> </ul>	<ul style="list-style-type: none"> <li>- <b><u>Product /artifact</u></b></li> <li>- <b><u>Freedom of choice</u></b></li> <li>- School curriculum</li> <li>- Evaluation</li> </ul>

A girl in either textile or technical craft - “outsider”

As the “outsider” has very limited experience in craft education she reacts very negative to this subject and the handworks have been the very unpleasant matter of the whole school days to her. She does not believe she has enough nerves and ability to concentrate on precise and detailed working. In this case the interest and the needs of the individual have a strong effect on the motivation.

The best memories from the handwork are connected with the situations in which the product was finished and there was an advantage from it. Also the optional projects with much freedom have stayed in the mind. The tools and classrooms have been in good order at school so she does not believe that these have affected his negative attitude. The teachers have also been nice. Perhaps the most significant effect on his motivation has been that she has lived abroad a large part of her school years and she has never been able to become acquainted with the studying of the handwork.

Table 6 Factors behind the attitudes towards craft education of “the outsider”

PERSONALITY	ENVIRONMENT	SOCIAL RELATIONS	SUBJECT CONTENTS
<ul style="list-style-type: none"> <li>- <b><u>Character</u></b></li> <li>- <b><u>Interest</u></b></li> <li>- <b><u>Needs</u></b></li> <li>- Physical abilities</li> </ul>	<ul style="list-style-type: none"> <li>- <b><u>Living abroad</u></b></li> <li>- <b><u>Classroom environment</u></b></li> <li>- <b><u>Nursery school</u></b></li> <li>- Materials</li> <li>- Machines and tools</li> <li>- Values in society</li> </ul>	<ul style="list-style-type: none"> <li>- <b><u>Teacher - Student interaction</u></b></li> <li>- <b><u>Grand mother</u></b></li> <li>- <b><u>Classroom atmosphere</u></b></li> <li>- Teacher</li> </ul>	<ul style="list-style-type: none"> <li>- <b><u>Product /artifact</u></b></li> <li>- <b><u>Freedom of choice</u></b></li> <li>- <b><u>Evaluation</u></b></li> <li>- <b><u>Process</u></b></li> </ul>

## Discussion

According to this study, the attitude towards craft education was relatively positive with most of the students. Many researchers share the same opinion and it is not surprising that both boys and girls are attracted to craft education because they enjoy working with their hands and like the independence and chance for creativity provided by these classes (Silverman & Pritchard 1996). Students who typically enroll in craft education are attracted to the types of projects they will be engaged in (Weber & Custer 2005).

It seems that several other subjects have more motivational problems than craft education. Additional studies, based on momentary time sampling methods suggest that these negative perceptions are not limited to one or two of the hardest class subjects but are pervasive across entire school curriculum (Shernoff & al., 2003). We can assume that all subjects could use more practical methods, which give the students more independence and the change for their own creativity.

Some students do not either place a value on the crafts or on the vocational education in the field of craft education. From their opinion, the high school is absolutely better and the more respected study place

than the vocational education. Usually, these thoughts in regard to craft education follow those values and attitudes which are very much from home. On the other hand interest in craft education can be improved significantly by developing special programs (Mammes, 2004) where teachers need to be aware of the differing interests of the both sexes and consider ways of making the environment and the subject attractive to them (Silverman & Pritchard, 1996).

The artifact to be made seemed to have more value than the process. Also in the factor analysis of Autio (1997) a practical advantage received from the product was emphasized higher than the process, which for its part would refer to the emphasizing of the external motivation. Even though Ryan & Deci (2000) suppose that extrinsic motivation is possible to change intrinsic if the project is interesting enough. This phenomenon seemed to be true also in this study. Most of the students valued the product first, but later on the internal feedback turned out to be one of the key elements of the attitude.

## References

- Alamäki, A. (1999) How to educate students for a technological future: Technology education in early childhood and primary education. Publication Series B: Research Reports No. 233, Turku: The University of Turku.
- Autio, O. (1997). Oppilaiden teknisten valmiuksien kehittyminen peruskoulussa [Student's development in technical abilities in Finnish comprehensive school], Research Reports No. 117. Helsinki: The University of Helsinki, Department of Teacher Education.
- Deci, E.L. (1975). Intrinsic motivation. New York: Plenum Press.
- Deci, E.L. & Ryan, R.M. (1985). Intrinsic motivation and self-determination in human behavior. New York: Plenum Press.
- Dugger, W.E. & Gilberti, A.F. (Eds.) (2000). Standards for Technological Literacy: Content for the Study of Technology. International Technology Education Association and Technology for All Americans Project.
- Gottfried, A.E. (1990). Academic intrinsic motivation in young elementary school children. *Journal of Educational Psychology* 82, 525-538.
- Harter, S. & Jackson, B.K. (1992). Trait vs. nontrait conceptualizations of intrinsic / extrinsic motivational orientation. *Motivation and Emotion* 16, 209-230.
- Kaukinen, L. (2006). Käsityöoppiaineiden arvo ja merkitys sekä opettajankoulutuksen järjestäminen. In Jakku-Sihvonen, R. (ed.) *Taide- ja taitoaineiden merkityksiä. Teatterikorkeakoulun julkaisusarja no. 39*. Helsinki: Yliopistopaino. 76-89.
- Mammes, I. (2004). Promoting Girls' Interest in Technology through Technology Education: A Research Study, *International Journal of Technology and Design Education* 14, 89-100.
- National Board of Education [NBE] (1994) Framework curriculum for the comprehensive school 1994, Helsinki: National Board of Education
- National Board of Education [NBE] (2004). National Core Curriculum for Basic Education 2004. Helsinki: National Board of Education.
- Ryan, R.M. & Deci, E.L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development and wellbeing, *American Psychologist* 55, 68-78.
- Sherhoff, D.J., Csikszentmihalyi, M., Schneider, B. & Sherhoff, E.S. (2003). Student engagement in high school classrooms from the perspective of flow theory. *School Psychology Quarterly* 18, 207-231.
- Silverman, S. & Pritchard, A. (1996). Building Their Future: Girls and Technology Education in Connecticut, *Journal of Technology Education* 7, 41-54.
- Sjøberg, S. (2002). Science and Technology Education: Current Challenges and Possible Solutions. In Jenkins, E. (ed.) *Innovations in Science and Technology Education Vol VIII*, Paris: UNESCO.
- Suojanen, U. (1993). Käsityökasvatuksen perusteet. (The bases of craft education). Porvoo: WSOY.
- Weber, K. & Custer, R. (2005). Gender-based Preferences toward Technology Education Content, Activities, and Instructional Methods, *Journal of Technology Education* 16, 55-71.

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## Sloyd Circus – to stage aesthetic learning

### abstract

*Sloyd Circus - the Swedish Craft organisation's largest project for children. The Swedish government appointed Sloyd Circus to carry out a three-year national commission in the field of child culture from 2004-2006. Part of the money was earmarked for research which gave the foundation for this researched based evaluation. The circus toured Sweden in a circus tent and gave a performance conducted by a team of three young skilled craft tutors and three artists (dancer, musician and actor). Children were invited to take part in a very interactive performance. The artists created an atmosphere that promoted aesthetic learning. The craft tutors worked hard to promote a gender-neutral environment in the workshops, skilfully manoeuvring past the "treacherous underwater rocks" of gender and multicultural issues. They inspired the children to venture beyond their usual roles by showing them adults who "dared", and by inviting them into a room that did not signal differences between people or cultures. An activity, given the label Sloyd Circus Pedagogy, was established.*

**keywords:** *craft, sloyd, aesthetic learning, gender, multicultural*

### Introduction

"We have something to tell the children about sloyd, to be able to do things yourself, to make your body do what you want. To work with sloyd, in the way we do in the Handicraft movement in Sweden, means that you use your entire body. You are very close to nature, bending, pressing, following, using tools that can be dangerous if you use them incorrectly. These things give self-confidence.

We borrow the circular space from the circus, with the expectations that arise within us when the circus comes to town, bringing the exotic and the special.

We have something to say to the children about sloyd and fantasy, and we want to do that together with the storyteller from the theatre, and musicians. The Handicraft movement has strong esthetical values. They have decorated, painted and made beautiful things in a folklore tradition...

Children are not necessarily interested in dovetailed box-corners or provincial stitching on tablecloths that can be seen in display cases of museums. Children are interested in playing, using their bodies in moving, surpassing themselves, becoming competent. That is why we hold Sloydcircus for children. For the grown-ups we offer Sloyd Circus as a well of inspiration./.../"

This is the way Sloyd Circus was presented as an idea in the year 2001<sup>39</sup>. The idea aroused the interest of important donors, and the Swedish Handicraft organisations largest project became a reality. In addition, the Swedish government appointed Sloyd Circus to carry out a three-year national commission in the field

39 Sloyd Circus, or as in Swedish, Slöjdcirkus means handicraft circus. The word slöjd was translated to sloyd in the late 1800 when Sweden had a leading role in sloyd education in schools not only in Sweden but in many places all over the world. This is the way it is translated into English in the project's official documents.

of child culture from 2004-2006. Part of the money was earmarked for research, the starting point of this research-based evaluation.

### **Aim**

The aim of the evaluation was to study the pedagogic process, what kind of learning takes place with respect to:

- gender and the multicultural perspectives
- the individual and the collective
- the cross-cultural meeting between storytelling, music, dance and craft
- the extramural context

### **Research methods**

The research methods used in this project are influenced by ethnography (Kullberg 2004). To capture a phenomenon as complex as Sloyd Circus, it was necessary to use a variety of tools. The first and most important was having a close relation to a gate keeper. Kristin Boström, the project leader, gave us access to the field in a generous way, expressing an awareness of the opportunity to glean valuable information for the project, from the research that was produced.

The researchers, Susanne Björkdahl Ordell and Gunni Kärrby, had direct access to the staff, before the Sloyd Circus tour started. Staff were asked to help by writing logs (diaries) which gave valuable inside information. Many hours were spent observing and talking to children and adults in- and outside the circus tent. To use a camera demanded parental approval, according to ethical rules for research, so we only took pictures when we had parents and children together in a performance. Using the video camera demanded the same approval. Video was used to capture the interaction between children and staff. After a day's performance, we all gathered to discuss the way the project was going. These so-called focus group interviews gave us researchers an unique chance to put forward questions which were discussed by the group from different perspectives (Davidsson 2007).

### **Results**

As a starting point, a description of the ambitious work to pre-plan this grand circus tour is presented under the heading five ground elements. These elements created what come to be labelled Sloyd Circus Pedagogy forming a supporting structure for what took place in a performance. The chapter ends with what we researcher saw in regard to our aims with the study; Sloyd Circus as a pedagogical arena.

#### **Five ground elements in the preplanning**

From the beginning a project "inspiration group" was given responsibility for the creation of the space. In this group the first cross-cultural meeting was conducted. The project leader, Kristin Boström, was also the leader of this group. She has formulated the following five corner stones.

Sloyd Circus was created from a developmental and educational perspective. During the time of preplanning a great focus was put on the following five ground elements

- shaping of the space,
- cross-cultural meeting,
- gender aspect,
- multi-cultural aspect,
- and the pedagogical approach.

Sloyd, storytelling, music and dance were seen as different ways of expression, with equal value.

The first thing that met the visitor to Sloyd Circus was the experience of light, smell, and colours – and that the space was so different from all others. Sloyd Circus was a tent. The floor of 154 square meter, was made of rough, interlocking, sawed planks from lark tree. There were four workshops, an entrée, dressing rooms and the gallery, all in a circle facing the main ring.

Nomad life was the point of departure for the inspiration group, which led to thoughts about mobility, minimalism, and not bringing too much. For example, there were no tables in the workshops. Benches and other interior design elements had many uses. The association to shepherding and Nordic summer inspired the colour palette of white, red, green, black and gold, like the circus gold.

### Shaping of the space

The inspiration group had designed the set-up for the work in the tent. The space could be seen as a stage, where children, craft tutors, and artists interacted with each other. When artists and craft tutors were in the tent at the same time, they could observe and inspire each other, and learn from the other's way of handling relations to the children. Openness and secludedness coexisted. Craft tutors and artists used the shape of the space to create the rhythm of the performance, between the introvert and the extrovert, between the individual and the collective. The circular shape was important, because no corner and no thing were further away than anything else. A few steps and every one were gathered in the main ring.

The space was surprising. The rough and the delicate were there simultaneously. The white tent canvas let the light through. In daytime when the sun was shining, birds that flew by, or the artists cast shadows on the canvas. At night the light from within turned the tent into a lantern.

### The cross-culture meeting

The main idea of this project was a belief that a cross-cultural cooperation would lead to something more than each part could achieve on their own. The artist co-operative called Big Wind, which provided musicians, dancers and actors, enriched the whole project by its choreographer who added movement and dance as a natural part of the cross-cultural meeting.

In Sloyd Circus it was the quality in this cross-cultural meeting between craft tutors, actors, dancers and musicians that created the conditions in which the children grew and learned. The staff used materials and their knowledge to entice creativity. Craft, music, storytelling and dancing were equally valued as means of expression.

### Male and female

The Sloyd Circus touring staff consisted of equal numbers of men and women. Every craft tutor was knowledgeable in woodwork as well as textile work. Sloyd Circus had four workshops. The names of the

work shops were chosen not to connect to the different craft arts, and the children used both wood and textile to finish their products. The workshops were equipped with basic tools (scissors and pins, knives and axes) and materials that were easy to work with, like wool, linen and fresh wood.

#### The pedagogical approach

To explore and investigate. The Craft Movement is a part of the Swedish cultural heritage and has for generations been transformed as it has been handed down. Could the Craft movement's "own pedagogy", its way of teaching by copying, be used in present time? Instead of choosing to eliminate this tradition of imitation, each meeting with the children started there. Imitation is closely linked to the way small children learn, but for the older children (the target group for Sloyd Circus, ages 7 – 14), the time spent copying gave the child a chance to concentrate on tactile experiences, on their own hands, on how tools and materials felt, to then add fantasy to what they were doing.

#### The multicultural aspect

The inspiration for the interior design of the tent came from all over the world and interpreted of Sloyd Circus. The multicultural was not limited, but was built into the context of the artefacts and it found expression in the artists' storytelling, music and dance. Every child could find a way of associating to the handicrafts. The big wooden bells used by the artists were inspired from ritual wooden bells from Bali, but in Sloyd Circus made of a 250 year old pine tree from Sweden. The first story that met the visitor was a Guatemalan story about the creation of the world. The inspiration for the walls between workshops came from the Mongolian yurt. Craft is a global phenomenon. Like epic stories – they have different expressions in different cultures, and they travel.

#### This is the way a performance was conducted

Sloyd Circus toured the country for two summers of 2004 and 2005 and had about 13 000 visitors, roughly as many children as adults. It visited 16 places from Karlshamn in the south to Kalix in the north. The 154 square meter tent held a total of 50 people, including staff.

The circus stayed for a fortnight. It demanded a careful planning to raise and take down the tent and to transport it. All material was kept in two containers. The touring personal lived in campers and trailers. They were responsible for keeping the tent connected to the alarm system and one of them was always on duty. This meant they lived close to the circus tent, mostly just a couple meters away. Work started early in the morning with a meeting for everyone who would work in the tent that day. Everything had to be in place and details coordinated with staff who would work outside the tent.

Most of the performances were contracted beforehand by schools, or by individual adults and children, because the concept demanded participation in an entire "show". The most common were 3-hour performances. This length suited the schools best, and it was the optimal way of reaching many visitors. Longer shows, lasting one day or two days, attracted fewer visitors.

The performance varied depending on the group or the time allotted, but there was a built-in order that remained the same. Artists met the children, accompanying adults, and craft tutors outside the tent. To music everyone took hands and wound in a spiralling folkdance around the flagpole that (for the visitors) ended on the gallery. During the dance, everyone had moved and everyone had seen one other. Together, the group's members would experience Sloyd Circus for three hours. After the Welcome song and the presentation the

artists took over the stage and performed “Hurricane”, a world creation story from Guatemala about how man and woman were created. Two gods meet in heaven to create the earth. One of the gods, Hurricane is big, noisy and strong and was always played by a woman, the other god, called Feather snake was weak and shy and always played by a man. You did not yet see into the workshops, thin silk draperies were hiding them.

After this the craft/sloyd begun. A lottery allotted the children to one of the four workshops using wooden pieces of different colours. The children followed each tutor into the workshop. The tutor presented himself/herself by writing a nametag and putting it on. After this, the participants presented themselves, and received tags written by the tutor. The nametags were one the rituals of Sloyd Circus. The tutor’s writing was a gesture of interest in the children, - I see you and we will work together in these workshops and we can call on each other by name even if we do not know each other. The tutor would then introduce the name of the workshop. A comparatively long working period followed that was devoted to craft/sloyd. The silk curtains, which served as the background when the actors performed Hurricane, were taken away, and the children became aware of sitting in a big room. The artists would pass by once in a while talking to the children, when they were not sitting on the gallery. By playing different instruments or singing, they affected the atmosphere. Sometimes one or more of the children went to the players to see what they were doing or to take a break. They were encouraged to walk around in the tent.

It was strikingly quiet during the first part of a performance. The silence was broken when the artists invited everyone to join the “Stick school”, which was a rhythm exercise using one big stick held like a walking stick and hit by a small stick to enforce the rhythm. Connected to this were different exercises, like hopping, moving and shouting, which together was called the “Stick school”. After this the children went back to their workshops. The artists took care of those children who had a hard time concentrating on the crafts. For instance, they could go outside the tent to practice blowing in cow horn, or borrow instruments from the artists. The big drum was popular.

At the end the artists came in to sing the sweep-the-floor song. To sweep the floor and clean up the workshop was part of the program, before the artists one last time gathered the visitors on the gallery to perform the last story for that specific group. They could for instance use the handmade marionettes that were part of the interior of the tent. The first year the children held up what they had done in front of the group, the second year the ending changed to focus on the “treasure chest of words “ found in the Finnish Epos Kalevala.

### **Sloyd Circus as a Pedagogical Arena**

What do children learn in this arena? There was an explicit educational/pedagogical interest on the part of the project leaders. They wanted to use new pedagogical approaches to reach out to children in an attempt to get them interested in sloyd. It was a challenge for us researchers to see what kind of learning takes place in such a context, outside well-established institutions like schools. The content of learning was also different, in the sense that this was an aesthetic experiment offering the child different forms of expression.

### **A cross culture meeting**

Sloyd and circus were linked in a complicated relationship. The artists had responsibility for the circus part, intended to create an atmosphere. Vygotskij (1995) argues that a piece of art like a novel, music or theatre widens and deepens feelings. This is something we have seen many times in the introductory part of the performance. The children get hooked on the feeling by the dance, music and storytelling. They themselves



have just performed the introductory dance indoors. The atmosphere can be thick. We observed how the children left behind everything that was outside this tent. They will then follow the tutor to their assigned workshop, which means that something new will start. When the tutors take over, the atmosphere changes. They spoke to the children matter of factly, but with great enthusiasm and empathy.

The artists will also adopt take the role of pedagogue, but in their own way. They take care of children who prefer to test musical instruments or practice dance. The children dare to try out new roles, such as the role of a carpenter with both axe and knife, or the role as a dancer or musician. The artists express a wish that children should meet adults who can go in and out of different roles, and can prod children to do the same – to learn something about themselves, even to learn something about life – about how it is to live. The tutors in crafts are more down to earth in their wishes. They want the children to discover that they can manage to do things they never tried before. To experience they can succeed if they just dare to try.

At its best, crafts and circus collaborate to create a whole. The children, when asked, do not see craft and circus as different parts, they just embrace the concept without hesitation. Grown ups are more reflective focusing on the traditional differences in what craft and circus normally stand for.

## Discussion

### Learning in an extramural context

Learning means change and new ways of thinking. Aesthetics take form in different gestalts where feelings, knowledge and experience contribute to a change in thinking and ideas (Aulin Gråhamn & Thavenius 2003). Does Sloyd Circus contribute to aesthetic learning processes?

From a sociocultural perspective, learning takes place through collaboration and communication. Learning is related to the situation; the context and the surroundings, which are interpreted through collaboration and active exchange between people and between people and artefacts (Säljö 2000). The artefacts “speak” but their language can only be understood in a social and cultural connection. The artefacts are charged by the atmosphere in the tent.

The relation between product and process is something that has changed during the two years Sloyd Circus has toured. The meeting between sloyd and circus created new points of view. As the performance takes shape, the overall impact exceeds that of the different parts. On behalf of the sloyd this meant that the focus was more on the child than on the product. Children are not so focused on the product, and do not care too much if it gets finished. On behalf of the circus, this meant that the ending of the performance was changed. Instead of having the children show their products, they use the “Treasure chest of words”. The words, which are all verbs, mirror processes instead of products. The staff asks the children to pick a verb in the chest and associate to something they have made. The verbs can be carving, dancing, thinking, dreaming etc. The staff were much more content with this ending.

### Individual or collective

A contrast between the individual and the collective is another perspective from which you can analyse what take place in a performance. Historically, the craftsman has mostly been an individual working on his own; the circus on the other hand is collective. In Sloyd Circus the activities change between the collective and the individual. There is a rhythm in the performance that is managed by the artists. They are the conductor. The dancing-in is a collective experience in which everyone takes part. You see each other, take each other's

hands and form a temporary group. During part of the show, the visitor belongs to the smaller workshop group together with the tutor. The participants sit in a circle, the task is collective, everyone does the same thing, but the interpretation is individual. Dovemark (2004) showed in her study of the “new Swedish school” that the effort to create an instructional setting based on the rhetoric of responsibility, flexibility and freedom to choose, has led to less collective teaching and more individual work. It is the single student who is expected to take responsibility for individual tasks, who should be flexible and make choices. In Sloyd Circus the children did not have to choose a workshop, and very few protested. In Sloyd Circus the tutors took responsibility for helping all children carry out a craft activity – although they did have a comparably generous ratio of staff to children. Both artists and craft tutors commented on the importance of the collective appeal to create a group and a collective experience.

### Sloyd circus and school

How could the teachers who visited Sloyd Circus benefit from meeting artists and craft tutors? Sloyd Circus had an ambition to make its idea visible to a greater audience, it is stated in the goals for the project; “to develop new ways of collaborating with schools on different levels”. But little attention was given to the question of how Sloyd Circus would inspire the school. Few of the teachers interviewed said that Sloyd Circus inspired them in their everyday practice. Did Sloyd Circus look too exotic? In Sloyd Circus, the teachers met a project which was cross-cultural, and geared towards experiences, an expression for the postmodern society, a society in constant change. The visitors did not have to learn anything specific, they could just experience if they liked. In what way can a teacher relate to this? Can it have something to do with what Hargreaves (1998) writes “for most teachers, the core of every change raises the question if it is possible to adapt to teaching practice” (s. 28). An exception was a few schools which have been involved in a long-term cooperation with the Handicraft Movement. In those cases, the whole team of teachers came to Sloyd Circus to get inspiration for a school project. Every school has inside its boundaries representatives for both the craft tutors and the artists. They have also, compared to three hours of Sloyd Circus, an infinite amount of time with the children. What the schools do not have is economical resources. Is that decisive?

### Gender and multicultural perspectives

The national commission for the field of child culture states that Sloyd Circus shall have a gender and multicultural perspective. Both artists and craft tutors have consciously tried to prevent stereotyped sex roles. A great emphasis was put on this perspective while constructing the content of the performance and the workshops. The research results showed that they succeeded. In this surrounding that is shaped by the space and the staff, the children meet a totally unfamiliar culture; -What is Sloyd Circus? -What is expected from me here? The unfamiliar, the unexpected, helps the children to free themselves from their usual expectations about how a boy and a girl should behave. The older the children are, the harder it is to tempt them to get beyond their traditional roles.

When it came to the multicultural perspective, the school was the main gateway for reaching children from a different cultural background than Swedish. The tent in itself was not designed as a “temple” for Swedish sloyd, on the contrary it had taken inspiration from all over the world. When the children came with their parents on family days, we as researchers got the impression it was mainly families having already some connection to the Handicraft Movement. There are no statistics to rely on, but we have checked our impressions with staff who confirmed them. This is one of the great challenges; say those responsible for the

project – to reach out to new groups, meaning not only the children with a different cultural background but also children whose families do not have a prior connection with arts and crafts. There is a great frustration with the fact that, despite the scope of the project, it did not reach new groups. One new group was reached – that of functionally handicapped children. The way the performance was set up and the collective competence of the staff gave these children a very special experience. Especially the song and dance part inspired those children often more than children from regular classes.

### Sloyd circus pedagogy

Is there something that can be label Sloyd Circus Pedagogy? The project was built up from five elements: the space, the cross-cultural meeting, the gender aspect, the multicultural, and the pedagogical approach. “Iscensätta” the Swedish word for staging in the theatre is a verb that well fits this context. The learning took place in a performance. The quality of the learning depended on how the cooperation between the craft tutors and the artists evolved. Our research-based evaluation shows that this cooperation was constantly under discussion. After touring for two summers, the staff developed a way of working based on a common view of children, learning, and knowledge. When it came to children, they believed that all children can succeed given the right support. The staff showed the children great respect and loaded the performance with a positive atmosphere that made the children dare to try new crafts and new roles. When it came to learning, they believed that children learn with all their senses and at their own pace. When it came to knowledge, it was often about life. It was mostly the artists who spoke about this – theatre is about life.

It is also in this way that they skilfully manoeuvred past “treacherous underwater rocks” of gender and multicultural issues. They inspired the children to go outside their usual roles by showing them adults who dared, and by inviting them into a room that did not signal differences between people or cultures. In our observations we saw children being treated with respect as humans irrespectively of sex or ethnicity. This applies as well to children with different functional handicaps.

The space and its interior design also contributed to what can be called Sloyd Circus Pedagogy. The round room gave new perspectives. The children experienced sitting close to each other in the small workshop group, on benches without tables. Every thing needed was just an arm’s length away. They were in a small group and a big group. The light was different, a daylight which changed and was filtered trough the tent canvas. Elisabeth Nordin Hultman (2006) has noted the importance of the room in the pedagogical situation. The room signals something to the visitor, with signals that are stronger than the spoken word. She refers to a study in which the children were asked what they thought a traditional classroom signals – “sit still”, whereas a room with materials and equipment, a workshop, signals – “here you can do something meaningful”.

The children got in touch with their own learning by trying new way of doing crafts and stretching their role as humans. It is seldom that a visitor has the chance to be as interactive in a performance as in Sloyd Circus. It gave the children an experience and an inspiration to do crafts, to sing and dance. The performance showed many examples of how you can create, for a child, a learning milieu that is permissive, stimulating, and aesthetic.

### References

- Aulin Gråhamn, Lena & Thavenius, Jan (2003). *Kultur och estetik i skolan*. Malmö: Malmö Högskola, Lärarutbildningen.

- Björkdahl Ordell, Susanne. (2006). Slöjdcirkus. Institutionen för pedagogik Högskolan i Borås, rapportserie nr 1.
- Davidsson, Birgitta. (2007). Focusgruppsintervjuer. I Jörgen Dimenäs red. *Lära till lärare*. Liber förlag.
- Dovermark, Marianne (2004). *Ansvar – flexibilitet – valfrihet. En etnografisk studie om en skola i förändring*. Göteborg studies in educational sciences 223, Göteborg Acta Universitatis Gothoburgensis
- Hargreaves, Andrew. (1998). *Läraren i det postmoderna samhället*. Lund: Studentlitteratur.
- Hultman Nordin, Elisabeth. (2006). Det pedagogiska rummet speglar vår syn på barn. *Pedagogiskt magasin* nr 1: 2006.
- Kullberg, Birgitta. (2004). *Etnografi i klassrummet*. Lund: Studentlitteratur
- Säljö, Roger. (2000). *Lärande i praktiken. Ett sociokulturellt perspektiv*. Stockholm: Prisma. *Visa mig! Ungt möte med slöjd*. (1998). Rapport från Nämnden för hemslöjdfrågor. NFH.
- Vygotsky, Lev. S. (1995). *Fantasi och kreativitet i barndomen*. Göteborg: Bokförlaget Daidalos.

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## **CRAFTING BRIDGES BETWEEN CULTURES IN MINNESOTA: BIRCH BARK IN OJIBWE AND SCANDINAVIAN CRAFTS**

### **abstract**

*Between 1845 and 1930 tens of thousands of Scandinavian emigrants settled in the state of Minnesota where they shared land with the native Ojibwe tribe. New legislation requires schools to address the cultural and historical contexts of art objects, specifically including those of Minnesota American Indians. We describe the similar uses of birch bark to create beautiful, useful objects in both Ojibwe and Scandinavian cultures. We share efforts to bring knowledge of Ojibwe arts and culture to one school district through Project Intersect. A primary aim is to improve student understanding and performance in standards-based arts education, language arts, mathematics and science. Based on the findings in Project Intersect, we have designed traditional crafts classes for children and teachers at the American Swedish Institute, that will integrate a culturally responsive model with a standards-based approach.*

**keywords:** *American Indian, craft knowledge, standards-based, arts integration, Scandinavian*

### **Introduction**

In today's world it is easy to overlook the importance of our cultural heritage in the rush to adopt the latest in contemporary ideas and innovations. In education the importance of one's own heritage is often undervalued while the cultures of others become the focus of multiculturalism. But there is much gained from studying both our own culture and that of our neighbors. As singer Utah Phillips (1996) so aptly puts it,

“Time is an enormous long river, and I’m standing in it, just as you’re standing in it. My elders are the tributaries, and everything they thought [...] flows down to me and if I take time to ask, [...] I can build a bridge between my world and theirs.”

The United States is often called a nation of immigrants. In the past the metaphor of melting pot has been used to describe the manner in which the traditions of cultures have blended to create the American culture. In this process much of the unique “flavor” of the cultural ingredients have been muted. Many peoples’ traditional languages and craft knowledge, formerly necessary to everyday life, have been lost in this process, often through a desire to shed old ways for new in this “land of opportunity” or because of the practical need to adapt to changing economic and social conditions. In the case of the native populations, federal policies in place from the mid 1800s until the 1960s, included bans on traditional spiritual practices. Children were removed from their families to attend boarding schools where their language and cultural practices were strictly forbidden as they were expected to adopt white ways.

Between 1845 and 1930 tens of thousands of Scandinavian emigrants settled in the state of Minnesota. In the 2000 census 9.9% of the population claimed Swedish heritage (Lewis, 2004). In addition, significant numbers of others with Scandinavian heritage live in Minnesota. The traditional crafts of these Scandinavians were quickly abandoned as they embraced the United States as a “land of industrialization” (Soderstrom,

1899). As Scandinavians adopted American ways and the English language the inevitable loss of traditions followed.

When language and cultural craft practices are lost, important aspects of personal and cultural identity are gone as well. Like the loss of unique plants and animals as civilization encroaches, the loss of what Gee (2004) calls traditional ecological knowledge impoverishes us all. Using the newer metaphor of the “salad bowl” in which all the flavors and nuances each ingredient retains its full flavor this paper will present early results of efforts to create bridges between cultures by reintroducing Ojibwe and Swedish traditional craft knowledge into school and community programs in Minnesota.

New standards for arts education in Minnesota require that students “demonstrate understanding of the personal, social, historical contexts that influence the arts areas including the contributions of Minnesota American Indian tribes and communities. This has led to a need to develop new curricula that teaches culturally relevant, authentic information and activities to both native and non-native students. It also raises awareness that the arts of a group so populous as Scandinavians has also been overlooked in the curriculum of most Minnesota schools.

### **Ojibwe people of minnesota**

The Lenni Lenape, the original Ojibwe people, lived in the west .The Lenni Lenape kept a written record of their history going back more then seventeen hundred years, calling it the Wallam Olum . This is known to be the oldest written record of native people in North America. (Peacock & Wisuri, 2006)

Accounts of early Ojibwe life have been passed down through oral histories and pictograph records on birch bark scrolls and other materials (Garte, 1984). According to these histories as described by George Aubid, a Minnesota Ojibwe elder, remote ancestors of the Ojibwe and other Algonquin peoples ranged from Alaska to Maine moving at times into Siberia (Garte, 1984). They are said to have followed the polar bear and other animals from one place to another, knowing there would be food where they went.

The Ojibwe settled in the upper Midwest of the United States, where there were birch trees from which they harvested birch bark. Birch bark was plentiful and was used by Indian people from pre-contact times through the fur trade industry. The Ojibwe have utilized it for making wigwams, canoes, storage containers of various sizes, dishes, toys, pictographs scrolls, and decorative transparencies (Garte, 1984). A variety of techniques for bark decoration have been developed by Ojibwe and other Woodland peoples. One skill often seen is Birch bark decorated with porcupine quills. This intricate technique involves the insertion of porcupine quills into the bark, to create a variety of designs. The quills may be their national cream color or dyed with vegetable or commercial dyes (Garte, 1984). Contemporary uses of beads have replaced quillwork as decoration on Birch bark and various items made of animal hides. Birch bark became another well-traded and desired item in trade with the Europeans and has changed in styles and purposes over time. Currently, birch bark is being used for language and culture revitalization by contemporary Ojibwe communities.

The introduction of European settlers to Minnesota, also introduced the colonization of American Indian tribes and the loss of their land, language, spiritual beliefs and culture. The introduction of Boarding Schools by European missionaries almost completely wiped out the use of traditional language by Ojibwe people. The culture of crafting was also lost by many during this period of severe colonization. Children were taken from their families and enrolled into boarding schools, and not permitted to speak Ojibwe, communicate with their families or continue to practice any traditional craft or spiritual ritual. This resulted in the elders being unable to pass traditions onto their children and grandchildren. English became the primary language spoken by Ojibwe people, and many of their traditional crafts were lost. However, there

have been a few people in each generation since the introduction of boarding schools that have worked to keep the language alive and teach it back to communities of today. Like language, crafts are slowly being revitalized as part of the cultural reclaiming by the Ojibwe communities.

Ojibwe language and craft revitalization has been an important goal of many Ojibwe people. Peacock and Wisuri (2002) state that the true essence of who we are is in the language; “Our culture (everything that makes us Ojibwe) is in our language” (p.114). Unlike the world languages, there is nowhere else in the world that Ojibwe is spoken or written. Immersion programs, community centers, and classroom teachers are just a few groups working hard to learn, teach and integrate the Ojibwe language into their classrooms. As we work to re-teach Ojibwe language we cannot separate language from other cultural practices, such as craft, art and spirituality. Today, many Ojibwe elders do not believe that art, culture and language can be taught separate from each other, but are part of the cycle of what it means to be Ojibwe, past or present (Chapman, 2008).

### **Project intersect**

Project Intersect is a four-year federally funded arts grant that encourages collaboration between an off-reservation public school district and the neighboring Bureau of Indian Affairs tribal school of Northern Minnesota. Project Intersect aims to 1) Partner with local American Indian artists to infuse culturally responsive American Indian visual and performing arts into k-8 arts education, 2) Integrate American Indian arts activities into language arts, math, and science education, 3) Ensure that the American Indian arts-based curriculum is aligned with state and national benchmarks and content standards in the visual and performing arts, language arts, math and science, 4) Research the effectiveness of the culturally integrated American Indian curricular model in improving student academic performance in language arts, math and science, 5) Disseminate program results and outcomes for national and statewide replication.

Project Intersect is currently partnered with eighteen kindergarten through eighth grade public and reservation school teachers as they work to integrate Ojibwe arts and culture into their classroom curriculums. These eighteen teachers are part of a year-long effort to revitalize Ojibwe language, culture and art in the classroom, as well as work towards academic growth in math, science, social studies and literacy. Project Intersect provides teacher education in the fields of Ojibwe language and culture and traditional art, such as birch bark craft. Birch bark craft has been successfully used in all Project Intersect classrooms as a medium to teach culture, language and art.

Teachers have used birchbark as a way to teach historically important periods of the Ojibwe, such as the trading post period between the Ojibwe and European Voyageurs. During this time, birch bark was a commodity of trade and coveted as a material for vessels and tools. Birch bark also offers Ojibwe and Non-Ojibwe teachers a place to begin lessons on conservation and the natural resources of the upper Midwest and its many uses by native and immigrant peoples of past and present. Birch bark was used for making canoes, for hunting calls (moose), cooking containers, and food collecting vessels, as well as for homes in the Ojibwe culture. These different practices of birch bark are assigned to different family members in an Ojibwe tribe. These assigned roles provide content for teaching about social structures of families, hunting practices and gender roles of Ojibwe men and women.

Project Intersect teachers have invited community artists and elders into their classrooms to lead and also assist with birch bark projects. Many classrooms have harvested birch bark with local community members for craft use and students have experienced the process of preparing birch bark for basket making. Teachers have also worked with contemporary Ojibwe artists in the classroom, as they introduce new ways

of thinking about traditional crafts in their community. Field trips to culture and art museums also offer a variety of viewpoints and examples of past and present birch bark craft in Ojibwe and greater American Indian cultures.

Students, both of Ojibwe and Scandinavian heritages, have developed new skills and ideas through the use of birch bark in their classrooms. They have had the opportunity of meeting and working with community members and Ojibwe craftspeople and gaining craft skills and cultural knowledge in the uses and history of birch bark for the Ojibwe. Integrating crafts, such as birch bark into the classrooms has reinforced the idea of culturally relevant arts integration, through exploring ideas rooted in the families and communities of northern Minnesota. This project also gave teaching artists and elders the experience of sharing their knowledge and empowering their life experiences as valid sources of understanding.

Project Intersect is in its second year of implementation and has shown growth in academic achievement for all involved students (CAREI, 2008). The state standardized test scores have increased in all Project Intersect classrooms, but more importantly this project has offered teachers and community members bridges for connecting ideas of craft, culture and language not only in Ojibwe communities, but also for the large population of Scandinavian communities in northern Minnesota.

### **Swedes and other Scandinavians in Minnesota**

The experience of Swedish emigrants is similar to that of other early Scandinavian settlers. The first Swede came to Minnesota in arrived in 1810, married an Indian woman of the Dakota tribe and worked as a fur trader. However, the majority of Swedes arrived between 1850 and the 1930s, initially prompted by crop failures and accompanying economic hardships. Later, the promise of land through the Homestead Act attracted others with the promise of prosperity. While many settled in east central Minnesota, near the twin cities of Minneapolis and Saint Paul, many others settled in the areas from the cities north to the Canadian border. Farming, logging, mining and shipping were the primary occupations (Lewis, 2004). The northern part of Minnesota, with its richly forested areas and abundance of iron ore seemed very similar in landscape to their former homelands. Thus, they settled in the land of the Ojibwe, where the birch tree abounded among the evergreen trees and near the many lakes and streams. But even here the craft traditions were being lost to mass-produced tools and other objects for the home.

In 1884 Lars Erikson, who had been trained as a sloyd teacher at Nääs in Sweden, came to Minneapolis. On December 8 of that year he opened the first sloyd school in America in the basement of the Augustana Lutheran Church. Things did not go well for his school. Interest dwindled and it was said that “America isn’t Sweden.” After several attempts to establish and promote sloyd Erikson left Minnesota in 1899 to teach at the North Bennett Street School in Boston (Bennett, 1937; Soderström, 1899). In Minnesota, as it was across the United States, educators were interested in school programs that would prepare students to meet the needs of industry. Over the past century the nature of these programs has become more and more vocationally oriented as federal funding has been made available for these programs. Further, these programs are not aimed at elementary school students (Stertz, 2008). Focus on using hand tools and materials from nature to make well-designed objects by hand has virtually disappeared, along with the cultural roots of traditional crafts.



### **The rebirth of sloyd in Minnesota**

Still, many individuals continue to practice traditional Scandinavian crafts, such as those using birch bark as the primary material to make woven baskets, shoes, purses and backpacks, beads, and star ornaments. Some revived the practice of wood and fiber crafts and nurtured new crafters. Ten years ago a group of committed individuals, seeing to need to rediscover the roots of traditional crafts and culture, started North House Folk School (NHFS) on the shores of Lake Superior. The mission statement of NHFS includes “enriching lives and building communities by teaching traditional northern crafts in a student-centered learning environment that inspires the hands, the heart, and the mind” (NHFS, 2007). The school has grown and prospered, attracting people to an expanding schedule of workshops year round. Classes in spoon carving, birch bark weaving, birch box making and knitting, to mention just a few, are offered in one day to week-long classes. Most of the participants, however, are older individuals with the time and resources to spend several days up north.

The American Swedish Institute (ASI) in Minneapolis is housed in the mansion of Swan Turnblad who, at the close of the 19th century, published the Svenska Posten, the most widely circulated Swedish language newspaper in America. Its mission is “to interpret the history of the emigrant era” and “to share Swedish cultural and aesthetic traditions with the community” (ASI, 2008). In their collection of items donated by Swedish families are a woven birch bark back pack, several woven and folded boxes and a pair of woven shoes. Carved wooden spoons, knives and bowls are also part of the collection. These and other objects are used in tours and classes to illustrate the kinds of handmade household items Swedes used in Sweden and brought with them to America. ASI has offered culturally-oriented crafts classes for decades. Again, most participants are older adults, though there is a language school for children as well as a summer program that incorporates crafts and occasional family activity days. Twice a year NHFS and ASI collaborate on bringing a Swedish craftsperson to Minnesota to exhibit, demonstrate and teach their craft. A workshop for teachers has become part of these visits and has led to growing appreciation for hand crafts. Crafts teachers at the NHFS and ASI and a number of teachers and community members have been increasingly interested in the Scandinavian sloyd philosophy and with extending sloyd classes to school age students. Elementary teachers and art teachers, as they have learned more about the philosophy, have expressed interest in learning more about how to incorporate Scandinavian crafts and culture into their classrooms. For these groups, new professional development opportunities based on knowledge of sloyd philosophy and practice and cultural traditions are being offered through the collaboration of ASI, the Art Educators of Minnesota and the University of Minnesota. Beginning in January 2009 sloyd classes for children were initiated. A multicultural focus is being integrated into these classes. Through these initiatives it is expected that a new sloyd-based crafts movement will grow in Minnesota where sloyd was first brought to America.

### **Conclusions**

Based on the first two years of experience with Project Intersect there are important benefits to teaching traditional crafts and the cultures from which they emerged. In the case of the Ojibwe and the Scandinavians the similarities of purposes in the use of birch bark can help children develop intercultural understanding.

Simple outreach efforts by schools and teachers can help improve community relations by teaching traditional crafts practiced by cultures in the community. Craftspeople from the community working in schools engage more fully with their culture and their children’s education. Teaching a crafts curriculum relevant to the cultures of students can contribute to improving their school success.

Using birch bark as a craft material can promote learning for cultural and environmental sustainability as an explicit goal. Learning to problem-solve with head, heart, and hands can also lead to an understanding of and appreciation for the qualities of good design for living. Reintroducing students to their traditional roots can help them to appreciate the similarities that bind all cultures together.

## References

- American Swedish Institute. (2008). *Handboken*. Minneapolis MN: American Swedish Institute.
- Bennett, C. (1937). *History of manual and industrial education 1870-1917*. Peoria, IL: Chas. A Bennett Co., Inc.
- CAREI. (2008). *Evaluation report for Project Intersect*. Minneapolis, MN: Center for Applied Research and Educational Improvement.
- Chapman, J. (2008). *Lecture on American Indian art*. MPLS: University of Minnesota.
- Eyestone, J. (1992). The influence of Swedish sloyd and its interpreters on American art education. *Studies in Art Education* 34 (1), 28-38.
- Garte, E. (1984). *Circle of life: Cultural continuity in ojibwe crafts*. MN: Duluth Press
- Gee, J. (2004). *Situated language and learning; a critique of traditional schooling*. New York: Routledge.
- Lewis, A. (2004). *Swedes in Minnesota*. Saint Paul MN: Minnesota Historical Society Press.
- North House Folk School. (2007). *Celebrating birch*. East Petersburg PA: Fox Chapel Publishing.
- Peacock, T., Wisuri, M. (2002). *The good path*. Afton MN: Afton Historical Society Press.
- Peacock, T., Wisuri, M. (2006). *The four hills of life*. Afton MN: Afton Historical Society Press.
- Phillips, U., DiFranco, A. (1996). *Past didn't go anywhere*. Righteous Babe Records.
- Soderström, A. (1899). *Minneapolis minnen: kulturhistorisk axplockning*.
- Stertz, T. (Oct. 2008). *Personal communication*.

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## LEARNING IN PRACTICE – PRACTICAL WISDOM – THE DIALOGUE OF THE PROCESS

### abstract

*The intention with this research is to uncover the origin of the aesthetic knowledge and skills. Tacit knowledge, which is fundamental to the embodied skills and knowledge and the results of our action in the handicraft field, has been a major problem in the analysis. Another problem is the fact that actions take time. This presents a methodological problem, because a journal, qualitative interviews and similar material do not relate to time. Researching embodied skills and knowledge in the handicraft field of learning thus raise questions that have no traditional answers.*

*My interest in this field of research has developed from analytic relations to learning based on my own experiences from teaching sloyd and craft. I have developed my hypothesis and subsequently my theory on how learning in the handicraft field takes place as an embodied learning, arising from a dialogue between the individual, the tools and the material, involved in the process. I refer to this theory as “the process dialogue theory”.*

**keywords:** *Tacit knowledge, process dialogue theory, aesthetic knowledge and skills, sloyd, technical learning and thinking.*

### Introduction

Through man's entire existence, he has taught himself patterns of action and edified his knowledge. A big part of this learning and knowledge-edification has taken place in practice – that is by acting in relation to a piece of work or a process which has to be handled. However, how this area of learning actually functions in the individual (learning) or for that matter in institutional situations of learning (teaching), has not been a subject of much interest or research. Part of this can be ascribed to the fact that man, when he needs to learn something practical, only needs to have a presenter and an action which needs to be done. When he has repeated this action a sufficient number of times, he has learned it and will then be able to present it to others, who can then begin learning by acting. Often these presentations are not accompanied by much language. Maybe the verbal communication is just: “Look here. You just do this...”, “Now it is your turn.” How does the individual learn in this situation, and what becomes of this knowledge? When we know that we know it and we can present it to others, why do we not verbalize the actions and the knowledge? Are these patterns of action and this knowledge silent, or is it just not necessary to verbalize them? Are there within this field ways of communication which have not yet been examined?

That the number of traditional professional craftsmen is declining can be seen in statistical works; but many work situations in both the business world and in everyday life contain skills of craftsmanlike character. The apprenticeship of a craft as a learning system has survived in the trades and the skill-areas, which had an apprenticeship-like educational situation, i.e. singers, painters, architects. Now we can add new titles to the field of professional craftsmen, such as designers, creators, textile developers and so forth.

There are now many more of these occupational names. So to me “handicraft”, i.e. to be able to use one’s hands by means of one’s body-based experience and skills to produce something which others will pay for is still going strong – also in our Nordic culture.

Learning to produce the products which are necessary to survive in one’s own culture has always been a characteristic for man (Møllerup. 1998), and is for that matter a skill which separates us from the animals. Learning to produce these products based on body-based experiences, tools and reflection on the process is a consequence of man’s way of using his senses.

If this is the case, it means that the learning method where the function of the senses and the dialogue of the process (learning in practice) form a whole, is fundamental; is humanly universal. On this background it can be said that the way of learning, which for instance is in focus by researchers such as Lave and Wenger (1991. 2003), the Dreyfus brothers (1991. 2001), Illeris (2003. 2004a. 2005). and others, partly with an anthropological and partly with a psychological, intelligence- and learning theoretical basis, actually points out the learning method of the handicraft, which is a part of the universal human learning method – and it looks to me like the people who have the opportunity to use and do use this way of learning, do not constitute a minority, but a majority of humanity.

### **The craftsman-like learning**

The social learning system is treated and described by researchers such as Lave & Wenger (1991. 2003), Nielsen & Kvale (1999. 2003), Dreyer (1999) and others, while what I call craftsman-like learning is not quite as well described. In their theory about intuitive expertise, Hubert and Stuart Dreyfus discuss the results of this craftsman-like learning, but they hardly mention how this learning takes place and how it leaves its marks in man; leaves its marks in the body.

The craftsman-like kind of learning happens to a large extent through the senses. When we work with our hands, almost everything is taken in through the senses, both the far-away senses (sight and hearing) and the nearby senses (taste, smell and tactile senses). If the perception takes place through one sense, there may be a fine perception; but if there is a multi sense perception, then this is much stronger than the first-mentioned (Beck and Wellershoff. 2002).

By manual craftsman-like labour and learning, the tactile and sight senses are leading; but also the hearing and smelling senses are essential. The taste sense usually has less importance. Here are perception situations where multi sensing is prevalent. With this basis it must be a good, efficient way of learning, which can be found in the manual craftsman-like field. But how does the learning itself take place, and how can the results of this learning be stored and recycled as knowledge, skills and competences?

### **The process course for the sloyd process / the handicraft process**

When you work within one of the areas of sloyd or handicraft, your work traverses a course, a process, a work process for the practical work. This process has many names: The Danish Ministry of Education’s Executive Order calls it “the creative and craftsman-like production” ([www.faellesmaal.uvm.dk/fag/Sloejd/formaal](http://www.faellesmaal.uvm.dk/fag/Sloejd/formaal)) or “the design and work process” ([www.faellesmaal.uvm.dk/fag/Sloejd/beskrivelser](http://www.faellesmaal.uvm.dk/fag/Sloejd/beskrivelser)); the curriculum for the previous graduate education at Danmarks Pædagogiske Universitet uses the name “the process for aesthetic practical work”; the design theorists use “the design process”, and the philosopher Michael Husen calls the process “the entire work” (Husen. 1984). It is a process in which quite a bit of research has been done, especially within the framework of NordFo by Linnea Lindfors (Lindfors. 1992),

Kajsa Borg (Borg. 2001), Jan Sjögren (Sjögren. 1997), Christina Nygren-Landgärds (Nygren-Landgärds. 2000) and others. These researchers have all studied the field from their separate basis, with their separate perspectives, towards their separate foci – and essential points in the long and complex course of the sloyd process has been thoroughly examined. However, the total image of the course of the sloyd process has not yet been completely elucidated – far from, even, and many questions can still be asked, like: What is the essential element in the handicraft- and sloyd process? What is the real, the fundamental element for the handicraft- and sloyd process? Or in the modern, Danish discussion terminology: What is the core of our subject area? To me the core is definitely of a learning theoretical nature!

### **Pointing out and clarifying the dialogue of the process**

At a seminar in Göteborg, Sweden, within the framework of Nordic Handicraft Forum, a study – the Maihaugen Report (Godal. 1999) – was quoted as saying that among the points which ancient craftsmen found most essential in their education and professional experience, was the knowledge of materials and the knowledge of tools. This knowledge is not to be understood as if the individual craftsman or “sloydsman” knows where to buy wood or how to hit with a hammer. It is to be understood as the individual having to obtain a more profound understanding of the individual materials, that is the characteristics of the materials, their potential, their limitations and the fact that the individual must be able to use the tools in such a way, that they become a periodically integrated part of the person himself. Let me give an example: When a young child uses a hammer, it takes all of the child’s attention to hold on to the hammer and to hit, i.e. to even move the hammer in such a way which makes the head of the hammer hit the nail. When the skilled “sloydsman” or craftsman uses a hammer, his attention is turned to the intrusion of the nail into the material. If the process turns out the way it should, the “sloydsman” also manages to keep an eye on the materials, which are to be nailed together, to ensure that they have been correctly placed in proportion to each other. In other words, the focus has been shifted. The tool has become an integrated part of the “sloydsman” himself, and his attention is no longer where his hand ends, but where the tool ends. This could also be expressed by the fact that focus has been shifted from using his energy, consciousness and power to getting the tool to work, to directing focus in the working process towards going into dialogue with the material.

In the above mentioned working process with hitting a nail into some material probably made of wood, one can ask oneself if a dialogue arises – what I call the dialogue of the process. The word dialogue stems from the Greek word *dialogos*, which means conversation or discussion. Can you then call this dialogue, which is usually non-verbal or silent, a dialogue? I believe that a conversation or communication can be described as an exchange of views and arguments concerning a common field, and it is in this way I metaphorically comprehend the dialogue of the process. Man and tool constitute the one participant in the dialogue and the material is the other participant. The common field is the working process itself. In a verbal dialogue man mainly uses his auditory sense to hear words (sounds), which results in internal visualization and conceptualization. I here allow myself to except body language, facial expressions and so forth as a part of the verbal dialogue. In the dialogue of the process man also uses his senses, but in a slightly different and broader way.

An example: When the “sloydsman” puts the nail in place on the wooden material where the nail is to be hammered in, he intuitively estimates from his knowledge of this exact kind of wood, this kind of nail and this size of hammer, how hard he needs to hit with the hammer. After the first blow the “sloydsman” can, if he is attentive, sense how the activity has been carried out. He can hear what the sound was like in relation to the sound he expected. He knows what the sound of a correct blow sounds like. With the auditory sense

he perceives the sounds of the process, and he compares these sounds with his experience-based knowledge of sounds when a nail is hammered in. From this comparison alone, the “sloydman” can determine whether the process is going correctly or whether something needs to be corrected. Besides, he can see whether the nail went straight in as he anticipated, or whether it went in askew in relation to what he anticipated. With his sight he reads this thumbnail sketch, which is a result of his extension, the tool’s working up of the material; his “remark” to the material. If the nail has gone straight in, he can also by interpreting the image see if it has gone in as far as he expected. The tactile sense makes out the resonance or recoil the hammer produces in the hand as a result of the blow. This recoil tells the “sloydman” how the working up of the material in the process has been – successful or insufficient. By reading, “hearing” and feeling these reports or “remarks” from the material in the process, the “sloydman” obtains knowledge he can proceed with in the process. If the “sloydman” is satisfied with the “remarks” he receives from the material, he can proceed in the working process; if not he must consider what to do in order to adjust the course of the process to make it go the way he intended. Then comes the next blow – the next remark from the “sloydman” – and once again the material “answers” him in the working process itself. An answer, which can be read by means of the senses, and which the “sloydman” understands by virtue of his body-based experience, reflects upon and is then able to answer – that is to act. In this way the dialogue continues – what I call the dialogue of the process – until the nail has been completely hammered in. Often the process is concluded with an evaluation – a sense-like evaluation, where the “sloydman”, if he is right-handed, brushes over the head of the nail with the tips of his left-hand fingers, to feel – sense tactilely – whether the nail has gone all the way into the wood.

In this way a dialogue arises between man + tool and material in the course of the sloyd process or handicraft process each time a tool works up a material.

Triangle model of the dialogue of the process:

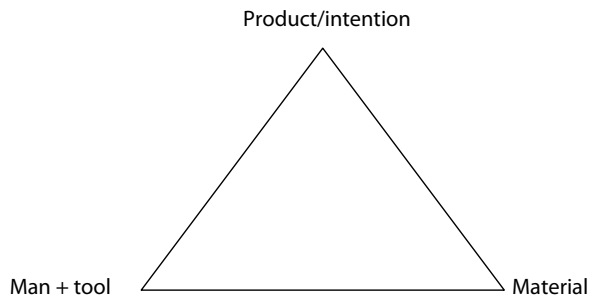


Fig. 1 The dialogue of the process is in the field within the triangle carried out between product/intention, man + tool and material. (Illum. 2005. p. 87)

In the course of developing the triangle model of the dialogue of the process I was aware of the fact that the conception of product did not cover all the areas, which could result from the dialogue of the process during a sloyd- or craftsmanship process. The dialogue of the process also occurs in, for instance, the practical working process in mending a bicycle puncture. Here it is more of an intention; a specific goal one has with the working process. It means that the practical working process can either have a specific product or a problem-solving intention as its goal.

The theory about the Dialogue of the process can be related to other similar theories of practising, learning or psychology. In my previous text I have mentioned a number of other researchers, in addition to

that comes Donald A. Schön (Schön. 2001), who has developed the theory of The Reflecting Practitioner. This theory deals with cognition and intellectual matters as they occur with the professional person working with his profession. In comparison to this, the Dialogue of the Process describes the learning matters which basically are of embodied and perceptual character as they occur in practical or manual working processes, especially during the learning process of the individual. The experiences and the knowledge, formed in the individual during the Dialogue of the Process, are also employed afterwards; but to some point we are dealing with routinized processes and skills, if the process passes as expected.

H. & S. Dreyfus (Dreyfus. 2001) describes through their theory of intuitive expertise the gathering and employing of this kind of learning in the individual. At its best, the field of learning, as it occurs with the individual in the situation of the Process of the Dialogue, can be explained in psychologically terms through the flow theory (Csikszentmihalyi. 2005., Ørsted Pedersen. 2006).

It must be noticed, though, that the theory of the Dialogue of the process is a suggestion to how the embodied learning and formation of experiences take places in the individual in the manual craft field.

### **Where in the sloyd- or handicraft process does the dialogue of the process occur?**

I have already described the working process itself as the sloyd process or the handicraft process – here I use the Scandinavian meaning of the words. From other perspectives than that of handicraft, this working process also has other designations, as mentioned earlier, like the entire working process, the aesthetic practical process, practical work and the design process. These different, non-craftsmanlike perspectives on the working process are obviously suggestions of what could be the contents of the process, but they all more or less agree with each other and with handicraft for that matter about the following four sub-elements in the working process: idea, planning, carrying out and evaluating. This is illustrated in the model below as the linear progress of the ideal working process.

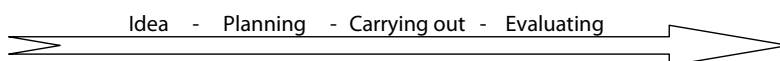


Fig. 2 The linear progress in the sloyd/handicraft/design process (Illum. 2005. p. 89).

The figure above is a theoretical picture of the common elements from many descriptions of design processes. This model can also be considered in relation to the Nato model (Engholm & Michelsen. 1999. p.144-146), as well as to Husens model of the entire working process (Husen. 1984). In practise under different circumstances the design process often will be circular (Illum. 2001) or spiralar.

Where in this progress is the dialogue of the process then? Considering that the dialogue of the process is defined as the field between man + tool, material and product or intention, it means that the dialogue is carried on during the implementation itself. However, the learning-like results of the dialogue of the process – the experience, the awareness – partly the body-based experience and partly the knowledge of materials and tools, which are left and gathered in man (Illum. 2004a. 2005), are used in a broader way in the sloyd- and handicraft process. This knowledge of materials and tools, which is collected in the individual in the course of many process dialogues, contributes to form the basis of both planning and evaluating the final product/intention. To sum up, the dialogue of the process takes place in the execution of the practical work itself; but the learning and the formation of experience, which emerges as a result of the dialogue of the process, is also the reason for the process phases of planning and evaluating.

### **Communication in and around the dialogue of the process**

The communication in the dialogue of the process is usually inaudible since it takes place inside the individual person in a more or less conscious form or, I could also in relation to Dreyfus' theory about intuitive expertise (H & S Dreyfus. 1991) call it in a more or less intuitive form. Regardless of how experienced the individual is, the dialogue in the dialogue of the process usually takes place as an inner dialogue. Exceptions from this, however, can according to my empiricism be observed, if degree of difficulty of the dialogue of the process' exceeds the participant's simultaneous communicative capacity, in which case examples can be observed where the person uses either his body language or his spoken language as an underlining element in the dialogue (Illum. 2005). Examples of such occurrences, which are categorized as commenting verbalization, can be that the person throws the thing aside, or that he comments with "Wheeeee...." or "Ohhh....".

It looks different if the context surrounding the learning situation is contemplated. Here it might be expected that the normal verbal form of communication, the spoken language, will be used. In the institutionalized context, where my empiricism was gathered, it was to be expected that the normal spoken language would be used explanatorily and descriptively, as it often is in institutional teaching situations. However, there were very few of this kind of occurrences in the educational course where I was present. The entire educational course was recorded on video, so there was picture- and sound coverage of the informants in a large part of the time they were present.

This picture- and sound coverage showed that the communication in this workshop-like practice field took place in a combination of linguistics and three-dimensional demonstration, where the three-dimensional demonstration was the focus of the communication. In other words it was a kind of bodily-based communication (the three-dimensional demonstration) which was the centre of the learning space. The direct speech, verbalization, which takes place communicatively in the learning space surrounding the bodily actions, is complex since it is often constructed differently from the everyday language. To me it looks like humans, when we work in the manual craftsmanlike field with learning and transferring knowledge, make use of a symbiosis of verbalization and bodily demonstration.

These conditions enable me to, by means of my material, categorize verbalization forms which I call parallel verbalization, metaphorical verbalization and summing up verbalization (Illum. 2004a. 2005). These are all verbalization forms which differ from everyday language, since they are usually very much tied to the context in practice situations, tied to the context in relation to a three-dimensional demonstration or a talk, examination or correction in relation to specific manual craftsmanlike conditions.

### **Documentation in the field embodied or practical actions**

How do we find a confirmation or a denial of a formation of a theory within the area of embodied experience and knowledge? Practical learning usually results in embodied experiences and knowledge which is expressed or employed in embodied or practical actions.

Many of the traditional scientific methods are not usable, because they do not contain the possibility of gathering empiricism related to practical actions, which are always embodied and always take place during a period of time. As a consequence it is necessary, in order to collect as valid an empiricism as possible, to use a method, which collects actions as well as contains the possibility to do so over a period of time.

The visualisation of action over a period of time is the scientist's possibility to get an impression of how the individual learned each skill, e.g. to cycle or to hammer in a nail. At the same time this problem contains the question of the scientist's possibility of analyzing this visualisation e.g. video. Can any scientist



analyze as deeply as another when it comes to the level of learning in all embodied skills and knowledge, or is every single scientist's prior understanding, knowledge and experience of levels of learning or levels of skill necessary to ensure a full and deep analysis? When it comes to embodied experiences and skills it is necessary that the scientist himself possesses embodied competences/qualifications in the specific area. Only an experienced athlete who is also an experienced academic is capable of reading how and at which level another athlete masters e.g. cartwheels. Through his own embodied experience and knowledge the athlete-part of the person can read the details in the movements as well as the level of learning, and the academic-part of him can consider these observations and this empiricism analytically.

In one of the examples of research which I had the opportunity to carry out myself, the gathering of empiric data and analysis was as follows:

The previously described visualisation of action and learning levels was documented via video recordings of a 22 hour teaching sequence. The total recording was reviewed to reveal the most important periods (here after called situations) for the field of study. The individual situations that occurred were micro-analysed into the following categories: fine motoric, body movements, perception, break, speaking and disturbance. These categories are all related to the field of study. The numbers in the left-hand column refer to time measured approximately in seconds.

### Situation no. 3

Date 5/9 2002.

Big camera in firm position – Video no. 4.

Informant no. - x (student) and T

<u>Time</u>	<u>Fine motoric</u>	<u>Body movements</u>	<u>Perception</u>
4027 – 28		T comes into the picture	
	Takes the item in his hand		
4031 – 32	Senses with his fingers		Hand perception Visual perception
		Gives the item back to the student	

4033 - 37  
Situation no. 31

<u>Time</u>	<u>Break</u>	<u>Speaking</u>	<u>Disturbance</u>
4027 – 28		x – <u>Now it is</u> fine	
T - Yes.....			
4031 – 32		T – It is really so	
4033			
4033 – 37		x – Now I can start the other one?? T – Yes – You could see that yourself.....	

The situation lasts for only ten seconds, yet it reveals in the action sequence both a physical bodily communication as well as a commented verbalisation; one in which the bodily action lays the basis for or the framework of what the spoken language can express.

In a search for further documentation of the learning conditions in the field, the informants used logbooks and participated in qualitative interviews at the end of the teaching sequence. In this way it was possible to have material that, together with the video material, allowed for triangulation of the field of study.

The learning field that lies behind the area of practical wisdom is not scientifically well documented (Illum 2005, Johansson 2002). The methodological questions on the study and illumination of the field are plentiful since many of the traditional scientific methods are not suitable here where documentation, decoding and analysis of action over a period of time are important areas. It will therefore be exciting to follow how this scientific field – one that, seen from different perspectives, can impact on pedagogic, neurology, psychology, intelligence studies, physical development, handicraft and everyday life, etc. – is further researched in the future so that this apparently original human physical learning (Illum. 2004b) and its context based communication forms can be disclosed. It is hoped that teachers and trainers can hereby have a better opportunity to foresee the problems in the field and thereby acquire better didactic tools to disseminate learning processes in everyday life, work life and educational situations in a broader and deeper way than is the case today.

## References:

- Beck, J. & Wellershoff, H. (2002). *Sanserne i undervisningen*. København. Gyldendal.
- Borg, K. (2001). *Slöjddämnet intryck – uttryck – avtryck*. Linköping. Linköpings University, Department of behavioural Science.
- Csikszentmihalyi, Mihaly. (2005). *Flow – optimaloplevelsens psykologi*. København.
- Dreier, O. (1999). Læring som ændring af personlig deltagelse i sociale kontekster. In: Dreyfus, H & S. (1991). *Intuitiv ekspertise: Den bristede drøm om tænkende maskiner*. København. Munksgaard.
- Dreyfus, H. (2001). *On the Internet*. London. Routledge.
- Engstrøm, I. & Michelsen, A. (1999). *Designmaskinen*. København.
- Godal, J. B. (1999). *Skisser og fabuleringer kring håndverkspedagogikk*. Tromsø/Lillehammer. De Sandvigske samlinger.
- Husen, M. (1984). *Arbejde og identitet*. København. Nyt Nordisk.
- Illum, B. (2001). Teorier bag design. I: *SLØJD nr. 5/2001. Tema: Design*. Århus. Danmarks Sløjdlærerforening.
- Illum, B. (2003). Processens dialog. I: Sandven, J. (red.) *Fagkultur og kernefaglighed*. NordFo. Techne serien.
- Illum, B. (2004a). Tavs viden eller .....praktisk klogskab – et bidrag med henblik på at afdække og diskutere problematikker omkring begrebet tavs viden dels som begreb og dels som forekomst i håndværksmæssig læring. I: Nygren, Landgårds, Christina & Borg, Kajsa. (2004). *Sløjdforskning – Sløjd och bild i en vetenskapsfilosofisk och metodologisk kontekst*. Åbo Akademi. Pedagogisk fakulteten. Publikation nr. 9/2004.
- Illum, B. (2004b). Håndværk som almen aktivitet for menneskelig eksistens. I: Snadven, J. (2004) *Sløydén, minoritetene, et flerkulturelle og det internationalt perspektiv*. Techne. Forskning i sløjdpædagogik og sløjdvetenskap B:13/2004.
- Illum, B. (2005). *Det manuelle håndværksmæssige og læring – processens dialog*. PH.d. afhandling. Danmarks pædagogiske universitet. København.
- Illum, B. (2006). Learning in practice – practical wisdom – the dialog of the process. I: Borg, Kajsa & Erixon, Per-Olof. (2006). *Journal for Research in Teacher Education. Theme: Sløyd – Tradition in Transition*. Nr. 2-3 2006. The Faculty Board for Teacher Education. Umeå, Sweden.
- Johansson, M. (2002). *Sløjdpædagogik i skolen – hand, tanke, kommunikation och andra medierande redskap*. Göteborg. Acta Universitatis Gothoburgensis.
- Lave, J & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge.

- Lave, J. & Wenger, E. (2003). *Situeret læring og andre tekster*. København. Hans Reitzel.
- Lindfors, L. (1992). *På väg mot en slöjdpedagogisk teori: Paradigmutveckling och kunskaps behållning*. Selma. Fram Bokförlag.
- Møllerup, P. (1998). *Design er ikke noget i sig selv*. København. Gyldendal
- Nielsen, K. & Kvale, S. (1999). *Mesterlære: Læring som social praksis*. København. Hans Reitzel.
- Nielsen, K. & Kvale, S. (red). (2003). *Praktikens læringslandskab: At lære gennem arbejde*. København
- Nygren-Landgärd, C. & Peltonen, P. (red) (2001). *Visioner om slöjd och slöjdpedagogik*. Techne serien.
- Schön, D. A. (2001). *Den reflekterende praktiker – hvordan professionelle tænker, når de Arbejder*. Århus.
- Sjögren, J. (1997). *Teknik – genomsnittlig eller svart låda?* Linköping.sity,
- Ørsted Andersen, Frans. (2006). *Flow og fordybelse*. København.
- [www.faellesmaal.uvm.dk/fag/Sloejd/formaal](http://www.faellesmaal.uvm.dk/fag/Sloejd/formaal)
- [www.faellesmaal.uvm.dk/fag/Sloejd/beskrivelser](http://www.faellesmaal.uvm.dk/fag/Sloejd/beskrivelser)

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## WHAT IS KNOWLEDGE IN THE SWEDISH SCHOOL SUBJECT SLOYD? TEACHERS' OPINIONS OF THE CONTENT OF SLOYD.

### abstract

*Three sloyd teachers were interviewed concerning their opinions of the content of knowledge in the Swedish school subject sloyd. Their choices and opinions are compared to the syllabus of sloyd. The results indicate that the teachers do not understand or care about the syllabus, although they believe that anything they do fits into it. They have opinions of knowledge grounded in their own view of what sloyd is and how to work with it. Knowledge comes from working with handicraft, which includes creativity, problem solving, planning and working methodologically. These skills are needed in society today, which the interviewed teachers are aware of, in spite of their choosing to describe the subject and claiming that it is a complement to theoretical subjects at school. The school subject sloyd needs a new syllabus that teachers can understand and use, and a description with an explicit connection to usefulness and society.*

**Keywords:** *sloyd teachers, syllabus, content of sloyd, knowledge, teachers' opinions*

### Introduction

What is knowledge in the school subject sloyd? In the school subject sloyd pupils learn things through working with handicraft. The subject is a compulsory subject in schools in Sweden, and as every other subject it should be formed on the basis of the curriculum and the syllabus of the subject in order for the pupils to reach the goals. Local plans are supposed to be developed locally by the teachers. All teachers make their own choices of content and working methods, which leads to differences in different schools depending on who the teacher is and on what background he or she makes the choices. The background of my questions is partly personal from my own time as a teacher, but stems also from meeting questions and opinions among teachers and teacher students about sloyd being a school subject. Teacher students also question how differently the content is experienced and worked out. The syllabus does not give a clear direction or identity to the subject, since it expresses different views, and rather talks about knowledge in other areas – for example different kinds of abilities – than about handicraft, that for a fact gives the sloyd subject its clear identity. This has made me curious about how it generally seems out in the schools: How do the teachers look upon the content of the subject sloyd? What do they think about the syllabus and how to use it, and how do they look upon the meaning of the subject related to society? How do they choose their content when anything seems to be possible, and what role does their background play? Do they have any opinion about the subject containing any knowledge and in that case, can they put words on their thoughts?

That it no longer is possible to clearly say what the pupils learn from the subject sloyd does not have to be a problem in itself; it can be an advantage to have freedom to create the content. The problem occurs when knowledge is valued differently and when sloyd teachers are unable to motivate or justify the school subject sloyd or to put what pupils learn into words. Hasselskog (2006) means that the fact that teachers

have different opinions is positive as long as, through local interpretations of the syllabus, the aim is to reach the common goals in schools managed by objectives. Borg (2003) means that the process is expressed so explicitly, with the goals formulated in the syllabus, that the content of the subject has been implied and that it is hard to understand for others than sloyd teachers. A previous understanding, which can be very personal, will then be prerequisite for using the governing document. Research shows that the governing document has a low degree of influence on how sloyd teachers shape their subject. It would instead be more important, except for local factors, for every teacher to choose her/his own content. Many have already before their education a picture of what the subject should contain and they also think that the content of the subject is mostly the same over the years. Teachers know the content irrespective of any syllabus. Sloyd texts are considered unrealistic, written by experts and theorists that have no idea about how teaching sloyd is conducted and do not see the practical parts of it (Borg, 1995, 2001). The picture of the content can for example stem from what the teacher herself or himself experienced at school or what he or she personally considers important based on personal interests. During the training period the students meet various types of teacher models (teacher educators, instructors in the field) whose behaviour they can choose to imitate or not, a form of self-socialization (Borg, 2001). This is supported by Berge (1992), who shows that teacher students consider the practice in the field most important for how they plan and carry out their teaching, either as a positive model or as a negative example. It is also supported by Porko-Hudd (2005), who means that older teachers base their teaching on experience and younger teachers base it on traditions from their own time at school and from home. That sloyd teacher students have different entrances to their profession is noted by several researchers (Berge, 1992; Porko-Hudd, 2005; Nygren-Landgärds, 2000). The literature shows examples of craft-oriented students who change their perspectives during education, to understand that the education aims for them to become teachers of a school subject, but also examples of those who keep their perspective – as a craft person or as a teacher. Today the teacher education looks different. All prospective teachers study courses together for 1.5 years and then add another subject besides sloyd. As a consequence of that, it might be supposed that future sloyd teachers do not have the same interest in crafts as earlier, when they also needed previous knowledge. To teach two subjects probably gives a stronger identity as a teacher and therefore a lighter connection to, and competence in, sloyd (Borg, 2006).

How conscious are the teachers when they choose the content and on what grounds do they choose? The material for teaching reflects what and in what way pupils should learn sloyd. The teacher's way of teaching always mediates an ideology even if it is not the one that the teacher wishes to mediate. Through working methods, teaching materials and work fields, the teacher's ideology is reflected. (Porko-Hudd, 2005). Product-centred professional and hobby magazines are often used, which can be seen as basis for reproducing products (Porko-Hudd, 2005; Berge, 1992). Instructions seem to be the only right way to work, but they are also associated with pupils' independence (Berge, 1992). To work according to a model does not have to be reproducing; it can also contain learning and training to work methodically and to make use of the handicraft to work methodically. Jernström (2000), who has studied the learning situation between a master and an apprentice, notes that the learning is not just about imitation; it is also about how the learning person creates "theoretical constructions" for every new situation. A "theoretical construction" means that the craftsman can see the entire manufacturing process in the head in advance, in order to be able to plan each step of the production. In a sloyd context, this attempt at handicraft could be translated into knowledge about the working method, something the pupils will acquire by independent training of handicraft. Lindström *et al.* state that understandings and actions of individuals are always included in a context; learning is "situated". Then there will also be an observation of what the pupils learn through learning crafts, a knowledge that is the result of experience but also knowledge of what situations and social

context knowledge can be used in. This “meta cognitive knowledge” represents the familiarity knowledge found in the syllabus (Lindström *et al.*). There is also a connection to the concept of “practical wisdom”, to know what to do in the right context (Gustavsson, 2002, 2004). In the school subject sloyd the whole process of sloyd is important and the product is included as a part of the result, or maybe as an instrument for the process (Borg, 2003; Skolverket, 2005). But it is also a matter of striving for goals in areas other than those related directly to the doing, for example abilities of various kinds. The school subject sloyd has a responsibility for the pupils to reach the goals of the subject. Cederblad (2007) means, however, that the knowledge gained from sloyd is based primarily on the handicraft.

Similar thoughts emerge from the national evaluation where reflections from pupils and teachers basically focus on sloyd techniques (Skolverket, 2005). The authors also question whether the product still is in focus with some of the teachers? Based on the interpretations of sloyd teachers’ diaries, Hasselskog (2006) shows what kind of goals teachers focus on. The area that most teachers focus on is “developing personal qualities”, but also on “sloyd knowledge”, such as knowledge of techniques, materials, tools etc. as important in teaching qualities. Historically the subject was more focused on pupils learning to be skilled in handicraft, and probably this view is still alive, although teacher knowledge and the sloyd process are a priority before the handicraft in teacher education, and although other things than handicraft are included in the national goals. Often the product is most precious to the pupil and is seen as proof of an effort (Lärarförbundet, 2003; Borg, 2003; my own observations). When Borg describes the opinions of the content of sloyd of her respondents, all teachers have opinions of necessary basic knowledge in the subject sloyd, (2001). Molander (1995) means that the emphasis on the creative process in the syllabus, not that it should lead to fine products, can be regarded as a sort of “something-to-do” activity that would be unacceptable in other school subjects. In a society where people have opportunities to be educated and get well-paid occupations, sloyd is valued as a merely meaningful recreation or as a form of therapy (Nygren-Landgärds, 2003).

It is obvious that the overall perception of sloyd as a school subject is varying. Sloyd is mentioned as a social or collective knowledge developing practice, but there are also opinions to the effect that “practical-aesthetic” subjects were not brought into schools to contribute to a higher level of education or knowledge development. (Aulin-Gråhamn, 2004). Instead the subjects are introduced as a complement to other subjects or to strengthen certain competences. As activities to compensate for inferiority in theoretical subjects, to balance or amuse pupils during the schoolday and to foster them. That view is expressed by representatives of other areas than aesthetic subjects. Aesthetic activities are seen as something that makes learning in other subjects stronger (Lindgren, 2006). Parents, too, regard sloyd knowledge as being practical and therefore having a function as a counterbalance or complement to the theoretical subjects. Parents consider that pupils learn to work with their hands in sloyd and that the knowledge from sloyd education is primarily connected to home duties and might be used later in life (Johansson, 2002). Earlier teacher educations with model series in the subject are probably still significant for “the common apprehension” of what sloyd is, and what it is not, among sloyd teachers, their colleagues, parents and decision makers (Borg, 2003). Johansson (2003) means that knowledge of the practice in sloyd is made invisible and unformulated, and discusses whether sloyd teachers are always aware of the character of the subject. The view of sloyd as a practical subject creates and maintains limited and wrong apprehensions (Johansson 2003). The words and concepts used about sloyd are difficult to interpret and associate to other things than those intended. There is a need to discuss central concepts of sloyd and it is not always beneficial to lay stress on sloyd being a practical subject, since it implies that the subject lacks theory (Borg, 1995). The Swedish right-wing government suggested in 1991 that some practical-aesthetic subjects, among them sloyd, should be optional. This concept

was based on the opposition between theoretical and aesthetic subjects and on the way in which they were considered to contribute to pupils' development. The spokesmen of sloyd maintained that the pupils needed some challenge during the schoolday and activities where they could make practical use of the knowledge picked up from other subjects. They also accepted the separation between practice and theory as the defence of the subject (Säljö, 1995). Säljö questions if it is positive at all for the subject sloyd to discuss theory and practice in this way. To argue for sloyd as a practical subject is taking a risk of creating a subordinate role for manual and creative work. He also means that it is important to get rid of the picture of the subject as being only practical or serving as a change from theory during the schoolday.

This background of previous research gives the introduction to the purpose of this study, which is to investigate teachers' opinions of the content of knowledge in the Swedish school subject sloyd. The aim is also to find out how the teachers use the syllabus and how they talk about sloyd. Out of this I want to find a picture of what knowledge in sloyd is and why it should be a subject in Swedish schools as it is now.

## Methodology

This study is a qualitative interview study. Themes for the interview questions were planned on the basis of the research questions with the help of a domain specification that related the themes to areas of interest and questions (Crocker & Algina, 1986; Gronlund, 2006). The themes were for example: opinions of knowledge in the subject sloyd; put knowledge into words; background of opinions; context of the subject. Since this study is a pilot study, it will form the basis of a quantitative study, and therefore it was important to ask broad questions and to tackle the research questions through different interview questions and from different angles but still with focus on the demanded answers. After the analysis I wanted to see what I did not get an answer to, what had to be asked in a different way and if there arose any new questions. I used half-structured interviews since I wanted comparable answers and at the same time personal experience of the informants (Kvale, 1997). From the themes and question areas that arose from the domain specification the questions were constructed. An interview guide was used during the interviews, and occasionally follow-up questions were asked.

I conducted three interviews with active textile sloyd teachers. The interviews were performed in a closed room with only the informant and the interviewer present. The informants were not given the questions in advance. The teachers were informed that their answers would be treated confidentially and would form a basis for a presentation and an article. They were informed that they could break off the interview.

The interviews were taped and transcribed word-for-word. Then the interviews were read in their entirety several times to find similarities and differences between respondents and to thematize the answers to the main research questions. The results were presented thematically with a narrative structure (Kvale, 1997) and were supported by the domain specification.

The teachers were chosen among practising teachers that I had spoken to and that I knew could express themselves when talking about sloyd and didactics. They were three teachers of different ages (around 30, 40 and 50 years), with different lengths of experience of teaching. The reason for only interviewing textile teachers, although the subject sloyd also contains woodwork and metal work, was that this is a rather small study and that I wanted to keep the informants in the same area. The only reason for all three being women had to do with the fact that I have not met any male textile teacher yet. It is a small study that can tell us examples of how sloyd teachers think, but we cannot generalize from it.



## Research results

How do sloyd teachers choose what the lessons should contain? How much is linked to themselves and how governing is the syllabus? The teachers I interviewed were conscious that the lessons look different in different schools since the nature of the subject is influenced by the teacher. The backgrounds of the teachers' choices are different, but they all refer to their own way of being as a craftsperson and how they look upon sloyd. When starting their education, they all looked upon themselves as teachers based in sloyd. One of the respondents thought it was important that the pupils know about the technical fundamentals, to be able to work creatively and to enjoy themselves, and she referred to this as the way *she* wanted to work with sloyd and to show it to the pupils. The second teacher became a teacher because of her interest in sloyd and pointed out that the degree of difficulty should increase, but also that it must be joyful and varied both for pupils and for the teacher, for which reason she often let the pupils work with the sloyd that she appreciates herself. The third teacher had more and more come to see herself as a craftsperson and instructor in handicraft. She thought that the fundamentals of sloyd were the most important and that the joy should come with the work, also for herself.

When it comes to the syllabus, all three teachers thought that they could mainly do anything in the lessons and that it would still fit into the syllabus, since everything could be interpreted into it. Two of the teachers thought that they did not relate their choices to the syllabus at all: "You can do whatever you want and don't have to care about it," says one. "It's so extensive or wide that anything fits," says another. "The syllabus can be misinterpreted or interpreted in many ways" was another view, and two of the teachers reflected on how there could be standardized lessons when the guidelines did not work; the criteria *are* needed. At the same time they said that they actually wanted to use the syllabus but found it unclear and difficult to interpret. "You can't understand the goals," says one. And to be able to use it, it must be broken down into intermediate goals by the teachers. One problem could be that none of the respondents had got any introduction to working with the syllabus. They did not have time or guidance for working with the syllabus. For example, one of the teachers described that she found a discussion on the Internet and by that understood *how* to use the syllabus and *that* she was supposed to use it. Another teacher described that she used 50 hours trying to write down a useful local plan, but did not manage to formulate the document. She wished that the syllabus should be usable as it is, that it directly should be in explicit terms for teachers, pupils and parents. The third teacher told me that two years ago she had got time to interpret the syllabus, but in the main she had discussed the problems with teachers in other subjects.

Another problem could be that they did not recognize the content of what was important in the syllabus. When the teachers talked about how they chose the content of the lessons, all three pointed at the handicraft. They wanted the pupils to try different techniques to have the tools needed to go further. When they were asked to put into words what they regarded as knowledge in the subject sloyd, they talked about different ways of handling knowledge in handicraft, and to use their skills. One of them described good sloyd as when the craft techniques are the fundamentals and when the pupils use these tools in new perspectives, new expressions and designs of their own, i.e. used their creativity. Another one said that the most important knowledge in sloyd was a part of the handicraft – to be able to think several steps ahead – to plan, to use a method, something that is useful also in other situations of life. "You have to understand theoretically to know it practically," she said. The third referred to knowledge in sloyd as a practical use of theory, and described it as a sort of practical mathematics. But she made it clear that the knowledge really consisted of the techniques and solving problems, to see how it all fits together. So they looked upon the handicraft as



the fundamental tools to use for a process: sloyd is handicraft knowledge and as such it is a platform for creativity, planning, method or problem solving.

The interviewed teachers stated that it is hard to argue for the usefulness of sloyd in schools and that no one listens or takes it seriously when you want to say that sloyd is an important subject. They also said that it is hard to describe the substance and why it is important, why the pupils should be forced to have sloyd as a compulsory subject, when it seems that the theoretic subjects always need more time. Everybody knows that the pupils enjoy it, which is also pointed out in the national evaluation, and as a sloyd teacher you really want to tell about it and it might even be important to have fun. But one of the teachers questioned if that should be a reason for a school subject – that it is fun. And as an answer to the direct question why we have sloyd and how they usually argue for it, the three respondents said that: “there must be something about training the left and the right brain hemispheres...”, “the rest of the school is so theoretical...”, “sloyd is needed as a break in the theoretical world”. They put theory and practice against each other, and described it as the message that they tried in vain to tell colleagues. When I asked one of the teachers why colleagues and others do not know the benefits of sloyd, she answered: “Because they aren’t there and can’t see it... and I haven’t told them either...” But anyway she chose to say that sloyd is practical compared to theoretical subjects, something that obviously is not met with sympathy.

Therefore it was interesting to listen to the teachers’ suggestions and thoughts about what place sloyd could have or take in society, and what significance or importance it can have for the pupils, when they pointed to the things they had put into words when describing the knowledge in the subject sloyd earlier. The teachers said things like: “Society asks for creative persons today”, “In advertisements they are always searching for problem solvers, you can tell the parents”. “You have to put the IKEA furniture together in the right order”. The outcome of sloyd is knowledge that comes from working with the handicraft, so except for handicraft skills, knowledge in sloyd includes creativity, problem solving, planning and working methodically.

## Discussion/conclusions

It is clear that these three teachers look upon handicraft as the fundament of all knowledge in the subject sloyd. They choose to focus on different working methods or outcomes like creativity, problem solving, planning and working methodically, outcomes that they also find useful in society. The teachers do not find any reason to care about the syllabus, which they do not understand anyway. They say that whatever they choose to do will fit into the syllabus, which is also observed by Borg (1995). When the teachers talk about knowledge, they use their own way of working with handicraft as a way to express it. They all came into sloyd teacher education through their own interest in handicraft, and then changed their focus to teaching others, which also has been observed as common among teacher students (Berge, 1992; Porko-Hudd, 2005; Nygren-Landgärds, 2000). At any rate the interviewed teachers kept their deep interest in handicraft by focusing on it as knowledge in their teaching, in spite of the syllabus focusing on other goals too, like things pupils do or achieve. Cederblad (2007) means that the knowledge that comes out of sloyd is grounded in the handicraft, and that the products and the techniques still seem to be the most important value among pupils, teachers and parents (Borg, 2003; Hasselskog, 2006; Lärarförbundet, 2003; Skolverket, 2005). That is also something that I noticed myself, when I worked as a teacher.

The teachers find it hard to put into words what the knowledge is, but what they express as knowledge is written in the syllabus – why do they not know that? Why do they choose to argue for sloyd as a break in a theoretical world, like something that is just fun or relaxing for the pupils? As Säljö (1995) and Lindgren

(2006) show, there is a tradition to look upon aesthetic subjects as a complement to or an opposite of theoretical subjects, a tradition that is supported and argued for by both sloyd teachers and others.

The three interviews gave me a clue to what sloyd teachers might think about knowledge in their subject, and also to what it actually could be – a subject that is important for society and in the lives of the pupils. But it is also sad to be aware of what I feared when I started – that the teachers are left alone with the interpretation of the syllabus and that they really do not find the right arguments to stand up for the subject. So maybe it is time to use the teachers' own thoughts about knowledge in the subject and give it back to them in a document that they can understand and use.

## References

- Aulin-Gråhamn, L. (2004) Estetiska traditioner i skolan. In *Den radikala estetiken*. (pp. 13-33). Lund: Studentlitteratur.
- Berge, B-M. (1992) *Gå i lära till lärare. En grupp kvinnor och en grupp mäns inskolning i slöjdläraryrket*. Umeå: Pedagogiska institutionen , Umeå universitet, 33.
- Borg, K. (2003) *Att göra är att kunna*. Mås-projektet, Skolverket. Unpublished.
- Borg, K. (2001) *Slöjdämnet intryck – uttryck – avtryck*. Linköping: Linköpings universitet, Filosofiska fakulteten, Linköping Studies in Education and Psychology No. 77
- Borg, K. (1995) *Slöjdämnet i förändring 1962-1994*. Linköping: Linköpings universitet, Institutionen för pedagogik och psykologi, LiU-PEK-R-191.
- Borg, K. (2006) What is sloyd? A question of legitimacy and identity. *Tidskrift för lärarutbildning och forskning*, 2-3, 35-51.
- Cederblad, J. (2007) *Learning by observation. Upplevelse och lärande av hantverkskunskaper genom föreläsning*. Umeå: Institutionen för estetiska ämnen i lärarutbildningen, Umeå universitet.
- Crocker, L., & Algina, J. (1986). *Introduction to classical & modern test theory*. New York: CBS College Publ.
- Gronlund, N. E. (2006) *Assessment of Student Achievement*. Boston: Pearson
- Gustavsson, B. (2004) *Kunskapsfilosofi*. Stockholm: Wahlström & Widstrand
- Gustavsson, B. (2002) *Vad är kunskap?* Stockholm: Skolverket
- Hasselskog, P. (2006) Slöjdlärarens intentioner och kursplanen. In C. Nygren-Landgärds, & Borg, K., (Ed.), *Lärandeprocesser genom skapande arbete i vetenskaplig belysning* (pp. 96-112). Vasa: Pedagogiska fakulteten Åbo akademi. Rapport 21.
- Jernström, E. (2000) *Lärande under samma hatt: en lärandeteori genererad ur multimetodiska studier av mästare, gesäller och lärlingar*. Luleå: Institutionen för lärarutbildning, Centrum för forskning i lärande, Luleå tekniska universitet.
- Johansson, M. (2003) *Slöjdpraktik i skolan – hand, tanke, kommunikation och andra medierande redskap*. Göteborg: Göteborg studies in educational sciences 183.
- Kvale, S. (1997) *Den kvalitativa forskningsintervjun*. Lund: Studentlitteratur.
- Lindgren, M. (2006) *Att skapa ordning för det estetiska i skolan*. Göteborg: Art Monitor.
- Lindström, L. et al. (n.d.), *Communications and learning in sloyd practices*, Forskningsprogram, Retrieved December 29, 2006, from <http://www.estet.umu.se/projekt/communications/Communications%20and%20learning%20in%20sloyd%20practices.htm>
- Lärarförbundet. (2003) *Teoretiskt, praktiskt eller som i slöjden?*
- Molander, B. (1995) Kunnande som reflekterat handlande. *Slöjdforum*, 5, 32-35.
- Nygren-Landgärds, C. (2000) *Educational and teaching ideologies in sloyd teacher education*. Åbo: Åbo Akademis förlag.
- Nygren-Landgärds, C. (2003) *Skolslöjd nu och då – men vad sen?* Vasa: Åbo Akademi, Pedagogiska fakulteten.
- Porko-Hudd, M. (2005) *Under ytan, vid ytan och ovanför ytan. Analys av tanken bakom tre läromedel i slöjd*. Åbo: Åbo Akademis förlag.
- Skolverket. (2005) *Nationella utvärderingen av grundskolan 2003, Slöjd, ämnesrapport till rapport 253*. Stockholm: Fritzes.
- Säljö, R. (1995) Är handen praktisk och tanken teoretisk? *Slöjdforum*, 1, 5-7.

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## MULTICULTURAL CRAFT AT THE WEBSITE “VIRTUAL CRAFT PLACE”

### abstract

*The purpose of this study was to find out how multiculturalism is portrayed at the website “Virtual Craft Place” (in Finnish “Käspaikka”). The website is available at <http://www.tkukoulu/handmade/>. Educational resources about multiculturalism were approached from two perspectives: cultural diversity and multicultural issues. The technique used to analyze cultural diversity was mapping, and the technique used to analyze multicultural issues was based on content analysis. The preliminary results raised four themes for discussion: (1) homogenous multiculturalism, (2) lack of contextual information, (3) multiculturalism produced by the majority and (4) living multiculturalism.*

**keywords:** virtual craft, multiculturalism, educational material

### Introduction

It is typical of postmodern time that it cannot be taken for granted what kind of learning and teaching materials are and should be produced. In order to make educational materials more manageable, it is important, even necessary, to outline what kind of materials are included in Virtual Craft Place and to categorize them. A more comprehensive view of learning and teaching materials and a description of their differences and similarities may contribute to more conscious and systematic creation and use of educational materials on multicultural issues.

### Virtual craft place

Virtual Craft Place (Käspaikka in Finnish, <http://www.tkukoulu.fi/handmade>) is a national website and a virtual community linking pupils, students, teachers and researchers. Virtual Craft Place was founded in 1996 by innovative textile craft teachers who wanted to try a new information technology for sharing learning resources. Virtual Craft Place has been operated since 2000 in partnership with the Virtual School program organized by the National Board of Education. (Kröger 2003).

The Center for ICT in Learning at the Department of Education in Turku (TOP-center) administrates the computer systems and, for example, maintains the server and gives access rights. The producers of learning resources are given free disk space. TOP-center also educates teachers to produce web study materials. (Kröger 2003.)

The goal of the community is to support the distribution of the latest information in the fields of handicrafts and design and to ensure this information reaches everyone. The Käspaikka website includes an extensive selection of material produced by students and teachers to be used freely in teaching and for hobbies. The number of web documents is increasing, and the resources are diverse (Kröger 2003).

Virtual Craft Place is divided into different sections. My research interest is on the section called “Culture, craft and internationality”. Materials in this section are sorted by time, place and objects. I am interested in educational materials that are sorted by the place. The research data consists of 85 websites in this section.

### **Multiculturalism in the curriculum**

Multiculturalism is a part of the National Core Curriculum for Basic Education 2004. It is included in the area of integrated instruction called “Cultural Identity and Internationalism”. Multicultural education helps pupils to understand the essence of the Finnish, European and Worldwide cultural identities, discover their own cultural identity and develop capabilities for cross-cultural interaction and internationalism (National Core Curriculum for Basic Education 2004, p. 37).

Multiculturalism is also included in the objectives of crafts. The curriculum says that pupils should receive an introduction to the cultural traditions of handicrafts among Finns and other people (National Core Curriculum for Basic Education 2004, p. 240).

### **Cultural diversity in Finland**

The narrow definition of multiculturalism focuses only on immigrant minorities. The narrow definition means that multiculturalism is connected to the “others” and not to “us”. Finland-Swedes are not considered as multicultural in the same way as the Turks living in Finland (Löytty 2005, 182). The wider definition of multiculturalism refers to a state of cultural diversity within the demographics of a specified place. This definition includes both cultures of majorities and minorities but it does not include cultures outside the nation. Banks (2009, pp. 23-25), for example, points out that multicultural education deals with cultural groups within the nation and global education deals with nations outside the nation. However, the broad definition of multiculturalism is not only national but also transnational. People also identify themselves to cultures beyond national boundaries. People have linkages and exchanges with other cultures, including the usage of Internet and other media (Huttunen & Löytty & Rastas 2005). In this study, I use the broad definition of multiculturalism, i.e. multiculturalism includes both new and old minorities in Finland, the majority culture and its regional varieties in Finland, and cultures beyond Finland.

The old, historical or national minorities in Finland are the Finland-Swedes (290 000), the Sami (7000), the Roma (13 000), the Old Russians (5000), the Jews (1500) and the Tatars (850) (Ministry for Foreign Affairs of Finland 2008).

The new or immigration minorities include asylum seekers, refugees, people of Finnish ethnic origin and other foreigners. Finland remained relatively isolated from international immigration until recently. The number of foreigners in Finland began to grow towards the end of the 1980's (Raento & Husso 2002). There are no statistics in Finland on the basis of ethnicity, but there are statistics on the basis of mother tongue or nationality. Foreigners in Finland are from Russia (26 211), Estonia (20 006), Sweden (8 349), Somalia (4 852), China (3 978), Thailand (3 470), Germany (3 318), Turkey (3 182), United Kingdom (3 143), Iraq (3 036), former Serbia and Montenegro (2 986), Iran (2 611), India (2 333), United States (2 296), Afghanistan (2 197), Vietnam (2 010), Bosnia and Herzegovina (1 658) and other countries (37 072) (Statistics Finland 2008).

The Finnish majority culture contains several regionally distinctive patterns, the most notable of which are the contrasts between the east and the west (Vuorela 1976; Talve 1990; Virtanen & Dubois 2000). Cultural influences from Russia and Sweden dominate the differences between the east and the west.

### Research questions and methods

Finland is nowadays a culturally heterogeneous country, but is this cultural diversity evident also in educational web materials; is Virtual Craft Place a multicultural website and what kind of an image it gives about cultural diversity? The specific questions addressed in this study are:

1. Which cultures are represented in educational materials of Virtual Craft Place and which are not?
2. What educational materials are like when they are related to multicultural issues?

### Sample

The data used in the study consists of websites (= 85), which can be considered as educational resources connected to multiculturalism. These kinds of resources are stored in Virtual Craft Place under the section called “Culture, craft and internationality”. The data of the study consist of web pages published before 1<sup>st</sup> of October 2008.

A list of educational materials related to craft culture was obtained by visiting Virtual Craft Place section “Culture, craft and internationality”. All websites (85) and internal links connected to the websites were visited. Websites are structured in a variety of ways. Some website are extensive, with more than 10 links (internal and/or external). Subsequently, websites were specifically examined for cultural diversity and multicultural elements.

### Data analysis techniques

Educational resources about multiculturalism were approached from two perspectives: cultural diversity and multicultural issues. The technique used for analyzing cultural diversity was mapping. The technique used for analyzing multicultural issues was based on content analysis.

### Preliminary results

#### Cultural diversity in educational materials of Virtual Craft Place

Websites were categorized to four categories: old minorities in Finland, immigration minorities in Finland, majority culture in Finland and cultures beyond Finland (table 1).

We can see that many cultures are included in the website but there are also some shortages. For example, there is no material concerning the craft culture of the Roma people. We know that the Finnish Roma women wear a special kind of dress, for example. Russians are the largest migrant community in Finland. They are also an “old minority”. Materials about the Russian craft culture are also absent. There are some pages about Karelian crafts but Russian immigrant cultures are not involved in them. There are some materials about immigrant cultures like the Albans, the Afghans and the Somalis, but the number of immigrant groups is much larger.

We can argue that the immigrant communities in Finland are small due to the restrictive immigration policies. Secondly, we can argue that the newcomers do not have links to Virtual Craft Place and therefore have a limited opportunity to partake educational material production. However, there are immigrant pupils at schools and in craft lessons. We could give a voice to minority representatives through co-operative projects. Further developing of co-operation between minorities and the majority would be of great importance when we talk about multicultural education.

Table 1 Cultural diversity of Virtual Craft Place

Cultural group	f	%
Old minorities in Finland		
- Finland-Swedes	0	7.0
- Sami	6	
- Roma	0	
- Old Russians	0	
- Jews	0	
- Tatars	0	
Immigration minorities in Finland		
- Afghans	1	1.2
- Albans	2	2.4
- Kurdistanis	2	2.4
- Somalis	2	2.4
Majority culture		
- Finnish culture	8	9.4
- Finnish local cultures	14	16.5
International cultures		
- Europeans	15	17.6
- Asians	12	14.1
- Americans	13	15.3
- Africans	9	10.6
- Australians	1	1.2
	85	100

#### Homogenous multiculturalism and exoticizing of culture

There are some references to cultures as if they were a single homogeneous culture. This kind of content includes cursory introductions to the originating culture, and they may provide inauthentic replications of formally significant craft forms within the culture. For example, bead weaving activities dominate materials connected to Indians as if Indians were a single homogeneous culture. The rich variety of craft forms created among Indians has been excluded. It seems that such materials are just for the purpose of classroom activity. They do not reveal the complex traditions, rites and rituals associated with crafts. Instead of expanding pupils' understanding of the complex issue of diversity, these materials in a way narrow down cultural diversity by exoticizing of culture

### Contextual information

Every website included more or less pictures or verbal descriptions of distinctive techniques, patterns or products of different cultures. There were 18 (21%) websites that included only this kind of elements. It can be argued that such materials lack the contextual information necessary in presenting craft objects of meaningful multicultural value. Furthermore, it can be argued that materials without contextual information do very little to expand pupils' understanding of the complex issues of diversity.

Nearly a half of the websites (45%), however, included cultural meanings, i.e. intentions, beliefs and values. Some of the websites (6) included also descriptions of ways of life that help to understand the complex issue of diversity.

### Multiculturalism produced by the majority

Multicultural craft materials of Virtual Craft Place are mostly produced by textile teachers who are from the majority culture. It should not be forgotten that pupils bring with them a culture of their own. Immigrant pupils often experience a bicultural world in which they struggle to integrate the new culture with the traditions of their families.

Making room for youth culture is also a form of multiculturalism and should not be ignored in materials. Youth fashion, for example, can be more significant to pupils than the traditional idea of culture. In other words, when creating multicultural craft materials, it is important to look not only "out" to diverse cultures, but also "in," capitalizing on the youths' interests and multicultural understandings they already bring with them into the classroom.

The important question is: How to give a voice to immigrant pupils and minority representatives when producing materials to Virtual Craft Place? One solution could be to extend multicultural craft projects so that they would include content production to Virtual Craft Place.

It is also crucial that teacher education programs produce multicultural materials with student teachers and in co-operation with immigrants and cultures beyond Finland.

### Living multiculturalism

Approximately a half of the websites (52%) included applications to the present day or to another culture. These applications are important when we regard culture not as a fixed unit but as a level of interaction in human society constructed and reproduced by processes of communication.

### Conclusion

This study endeavors to illustrate, analyze and define educational materials related to multicultural issues. The preliminary results show that the website Virtual Craft Place includes various representations of multicultural craft.

Virtual Craft Place includes a wide range of cultures. However, the lack of some minorities as illustrated in Table 1 is a serious shortcoming. The results are similar to Lakkala's (2008) master's thesis. This is connected to the problem that materials are produced by the majority. We should explore effective means for involving more minorities' craft culture in educational materials. The perspectives on multicultural materials and media should be broadened to include minorities' own production.

The contents of materials are diverse. Culturally distinctive techniques, products or symbols and applications are presented explicitly. Also contextual information is presented in many materials. Some materials even included life style descriptions. Some materials, however, can be criticized for their homogeneity and lack of contextual information.

Teachers have a difficult task in teaching multiculturalism in a meaningful way and critically and in incorporating multiple points of view. Virtual Craft Place can give a much wider view than school books could give about multicultural craft, and therefore the educational resources of Virtual Craft Place are important. The results outline the need for developing critical and meaningful resources to help students and teachers become more diversified teachers of multicultural issues. It is time to break down the limited ideas of multiculturalism and extend them to include more critical and more complex meanings and understandings.

Diverse educational materials can help all students (minorities and the majority) to acquire the knowledge, attitudes, and skills needed to function effectively in a pluralistic democratic society and to interact, negotiate, and communicate with people from diverse groups in order to create a civic and moral community that works for the common good. The diversity of resources also encourages creativity.

## References

- Banks, J. 2009: Teaching strategies for ethnic studies. Boston: Pearson / Allyn & Bacon.
- Kroger, T. 2003: Käsitöön verkko-oppimateriaalien moninaisuus "Käspaikka"-verkkosivustossa. Joensuun yliopiston kasvatustieteellisiä julkaisuja, no 90. Joensuun yliopisto.
- Lakkala, A-S. 2008: Monikulttuurisuus käsitöön oppimateriaalissa. Tarkastelussa Käspaikan verkkomateriaali ja Hyvä Sauma-tekstiilityön käsikirja. Käsitöätieteen tutkielma. Joensuun yliopisto.
- Löytty, O. 2005: Toiseus: kuinka tutkia kohtaamisia ja valtaa. In Rastas, A. & Huttunen, L. & Löytty, O. (ed.) 2005: Suomalainen vieraskirja: kuinka käsitellä monikulttuurisuutta. Tampere: Vastapaino, pp. 161-189.
- Ministry for Foreign Affairs of Finland 2008: National Minorities of Finland. 16 August 2008. <http://virtual.finland.fi/netcomm/news/showarticle.asp?intNWSAID=26470>>
- National Board of Education 2004: National Core Curriculum for Basic Education. Helsinki: National Board of Education. 10 August 2008. [http://www.oph.fi/info/ops/pops\\_englanti\\_index/index.pdf](http://www.oph.fi/info/ops/pops_englanti_index/index.pdf)>
- Raento, P. & Husso, K. 2002: Cultural diversity in Finland. Fennia 180: 1-2. Helsinki. 15 August 2008. <http://www.helsinki.fi/maantiede/geofi/fennia/demo/pages/raento.htm>
- Rastas, A. & Huttunen, L. & Löytty, O. 2005: Suomalainen monikulttuurisuus: paikallisia ja ylijäisiä suhteita. In A. Rastas & L. Huttunen. & O. Löytty O. (ed.) 2005: Suomalainen vieraskirja: kuinka käsitellä monikulttuurisuutta. Tampere: Vastapaino, pp. 16-39.
- Statistics Finland 2008: Population. 16 August 2008. [http://tilastokeskus.fi/tup/suoluk/suoluk\\_vaesto\\_en.html#Foreigners](http://tilastokeskus.fi/tup/suoluk/suoluk_vaesto_en.html#Foreigners)
- Talve, I. 1990: Suomen kansankulttuuri. Helsinki: Suomalaisen kirjallisuuden seura.
- Virtanen, L. & DuBois, T. 2000: Finnish Folklore. Helsinki: Finnish Literature Society.
- Vuorela, T. 1976: Suomalainen kansankulttuuri. Helsinki: WSOY.



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## FACILITATING COLLABORATIVE PRACTICES IN CRAFT AND DESIGN EDUCATION

### abstract

*This article presents four design principles for facilitating collaborative practices in craft and design education. Further, three design experiments are introduced in accordance with these design principles. A starting point of the present design experiments was the use of collaborative technology, such as Future Learning Environment as a virtual design studio. The growth of virtual designing has changed the primary role of the computer from a tool to a medium through which geographically or temporarily separated participants collaborate. Thus, viewing the computer as a medium for collaborative construction of the design object is necessary in order to understand and improve virtual designing in craft and design education. It was hypothesized that the virtual design studio would support teamwork outside of the lectures and would increase end-users' and experts' availability to actively participate in students' design processes. As a result, virtual design studios allowed design thinking to be more explicit and accessible to one's fellow designers and enabled participants to share their ideas and construct joint understandings.*

**keywords:** collaborative design, craft, design education, design experiment, virtual design studio

### Introduction

Design studies are more and more emphasizing the socially and physically distributed nature of the design process. Focusing on design as communication and not as a creative process, affects how investigators view it and hope to improve it (see Love, 2000). Communication can be achieved in a number of ways; it may occur through face-to-face meetings or, more recently, through virtual design studios (Maher, Simoff, & Cicognani, 2000). Communication between people may be one to one, one to several, or one to all; it may be synchronous, partly asynchronous, or totally asynchronous. The communications may take various forms, via speech, non-verbal communication, texts, drawings, photographs, prototypes, or a combination of these. One feature of this distributed activity is that it is difficult to track and perceive accurately, both for the design participants and researchers studying them.

Design-based research, characterized by iterative design in real educational settings, has been variously called design experiment (Brown, 1992; Collins, 1992), design research (Collins, Joseph, & Bielaczyc, 2004; Edelson, 2002), and development research (Reeves, Herrington, & Oliver, 2004). Common to design-based research projects is the fact that they result in the production of theories of learning and teaching, are interventionist (involving some sort of design), take place in naturalistic contexts, and are iterative (Cobb, Confrey, diSessa, Lehrer, & Schauble, 2003; Edelson, 2002). In this study, I prefer the term *design experiment*, as originated by Brown (1992) and Collins (1992).

The main principle of a design experiment is to integrate theoretical knowledge and hypothetical design principles with technological affordances to render possible solutions to complex problems (e.g.,

Brown, 1992; Collins, 1992). However, in the field of educational technology, the theoretical debate as well as large varieties of technological and pedagogical support for collaborative learning may appear confusing (Winn, 2002). A virtual learning environment refers to an asynchronous web-based environment that provides tools for computer-mediated communications (e.g., e-mail, chat, and threaded discussion forum) and tools for course administration, whereas a virtual design studio (VDS) may provide more sophisticated design tools such as a virtual sketchbook and 3-D modeling. Collaborative designing is explicitly based on communication and mediating artifacts.

### **Towards collaborative design in virtual design studios**

#### **Design principle 1: Apply authentic and meaningful design tasks**

In the field of design education, researchers agree that successful collaboration is based on open-ended and authentic design tasks or problems that allow students to appreciate the socially distributed character of design practice (Bucciarelli, 2001; Murphy & Hennessy, 2001; Seitamaa-Hakkarainen, Raunio, Raami, Muukkonen, & Hakkarainen, 2001). From a student-centered viewpoint, Land and Hannafin (2000) stress the importance of situated thinking and authentic contexts. In situated contexts, learning occurs naturally as a consequence of the learner recognizing the practical utility of knowledge as well as the need to use it to interpret, analyze, and solve real-world problems. However, authenticity alone does not ensure fruitful collaboration; it is challenging to integrate authentic design tasks with a social creation of design context that provide a stage for productive collaborative activity in educational settings. According to Dillenbourg (1999), it is very difficult to set up initial conditions (e.g., group size, task, and groupware) that guarantee the effectiveness of collaboration because conditions interact with each other in a complex way.

Collaborative designing differs from an individual designing because of its social character. First of all, collaborative designing requires common motivation to solve problems within a design team, and second, the collaborative design process allows effective invention of design knowledge that none of a team's members is likely to produce independently. The third differentiation to take into account is that design teams, as opposed to individuals, must not only deal with the design task itself, but must also direct part of their activity at organizing the group process (Stempfle & Badke-Schaub, 2002). To be successful, a collaborative design project must establish a definition of the team, identify their outcomes, ensure there is a purpose for collaboration and clarify the interdependencies of the members (Kvan, 2000, p. 410). There are many examples of various types of collaboration in design education, such as peer collaboration (Seitamaa-Hakkarainen et al., 2001), participatory design (McDonagh-Philp & Lebbon, 2000; Torrens, 2000) and collaborative interaction between a design school and company (Denton & McDonagh, 2005). In addition to end-user and expert participation, it would be extremely useful to take students' varying expertise and disciplinary backgrounds into consideration in setting design tasks and defining the design object.

Collaborative design process starts from a joint analysis of the design task as well as a clarification of the problem space (Seitamaa-Hakkarainen et al., 2001; Stempfle & Badke-Schaub, 2002). In this stage, prospective end-users of a product may have a critical role in defining and determining the various functional and emotional aspects central to designing the product. During the framing of the design context, various, sometimes conflicting, constraints that affect the design process and define its requirements need to be taken into the consideration. The constraints can be, for example, from the design task, from end-users of the product or from legislation. With the help of these constraints, the design team can make sure that the design has the required as well as the most desirable characteristics.

### Design principle 2: Support the externalization of design thinking

Designers create a series of design artifacts and representations along the design process (Bertelsen, 2000; Goldschmidt, 2004). A design idea is not necessarily well detailed or articulated in the early stages of the design process. Yet this kind of externalization helps intangible ideas to become concrete and allows them to be generated, modified and transmitted between people. Working with various design representations allows a greater degree of flexibility for the designer than working with the details mentally: resources can be brought to the problem that are not dependent on the cognitive structures present in an individual's mind.

The interaction between the designer and the material that Schön (1987) called the 'reflective conversation with the situation' is characteristic of design thinking. Different representations are suitable for different types of design objects, and they make various kinds of information available. On one hand, paper and pencil are useful in stimulating and expressing preliminary design ideas, whereas virtual techniques are useful in refining a final proposal (Charlesworth, 2007). On the other hand, while computer-based visualizations may be structurally sound and visually correct, real prototypes express tactile and three-dimensional properties better (Söderman, 2002). Despite rapidly developing design technology, material representations, such as physical collections, hand-drawn sketches, and real prototypes continue to have a place in exploration and idea generation within the design process (Goldschmidt, 2004; Keller, Pasman, & Stappers, 2006).

Essential for the effectiveness of the collaborative design process is the provision of a common space or place for design thinking to occur. It can be a shared physical or virtual space or a combination of these spaces. The use of a VDS can facilitate high-level discussions by providing a setting for deeper explanations of the phenomena under investigation. Kvan and Candy (2000) concluded that text-based design environments may especially support the exploration of the design problem space and the acquisition of strategic knowledge in the collaborative design process. By externalizing design thinking, students make statements and counter statements, defend and challenge each other's assumptions, all of which are processes leading to progressive discussions.

By means of VDSs, it is also possible to develop scaffold support for design thinking. The cognitive scaffolding of expert-like designing can encourage and provide conceptual tools for the students to reflect on their own design thinking. By categorizing design notes posted to the VDS, the participant are guided to specify the design ideas, generate, and articulate multiple ideas, and evaluate them critically, search for new information, comment on fellow designers' process and share the whole process with the other members of the team. In this way, technology can scaffold thinking in order to deepen understanding and enable learners to construct or display knowledge in multiple ways (cf. Jonassen & Reeves, 1996; Land & Hannafin, 2000). There are also aspects that are difficult or even impossible to express virtually; thus material artifacts, such as prototypes, are also needed for collaborative design processes. As Risatti (2007) has pointed out, a reflection on the materials is essential for both the maker and user of the craft object.

### Design principle 3: Facilitate participation and distributed expertise

The core of collaborative designing is distributed expertise (Seitamaa-Hakkarainen et al., 2001). Design situations are characterized by rapid change, ill-structured problems, and design processes that require many participants' shared efforts to build knowledge, to understand the design constraints from different perspectives, and to develop design solutions. All aspects of inquiry, such as creating the design context, constructing design ideas, evaluating the ideas, and searching for new information, can be shared with other

participants. However, it is not enough that the participants share important aspects of their design thinking, they also need to create the shared design object. In the collaborative design process, it is important that the participants create and improve design ideas together, not just agree or disagree about proposed ideas (cf. Bereiter & Scardamalia, 2003).

In craft and design education, participation and distributed expertise can be facilitated by considering the key stakeholders who are related to the design task or design context, and getting them to participate in the design project. Participatory design covers many design methods and strategies that attempt to address the needs and preferences of the potential end-users. While some methods focus more on evaluation of design and its usability (Torrens, 2000), others attempt to find new means to understand the emotional relationship between a product and its user (e.g., McDonagh-Philp & Lebbon, 2000). In fact, design collaboration is changing from a user-centred design process to collaborative design communities—from designing for users to designing with users (Sanders, 2002). In this sense, a participatory design approach considers end-users as equal partners or co-designers in the design process.

The interaction between educational institutions and workplaces has opened new learning opportunities, in which both participants learn something from each other. Such a relationship presupposes that both staff and students in academia and professionals in workplaces can jointly find and create mutually relevant objects, in which both benefit from collaboration (see Denton & McDonagh, 2005). Students in project-based design courses face a huge number of challenges as a part of their learning. They have to design while they are learning about design, and further, they have to take responsibility for planning and organizing their design activities. VDSs may support students in engaging in collaborative projects with potential end-users and domain experts, sharing their ideas and engaging in reflective interaction when face-to-face meetings are quite costly and complicated to arrange. Through virtual designing the future professionals get acquainted with tools and advanced practices of designing already during their education. However, it is important that students are not left working without guidance. A teacher is needed to structure the collaborative efforts and provide advice in VDSs, just as in traditional design studios.

#### Design principle 4: Promote collaborative construction of the design object

In studio-based learning, each student has traditionally been responsible for her own design object and the teacher or peers have assisted reflection (see Schön, 1987). According to Ashton and Durling (2000), these kinds of social interactions can promote reflection by means of dialogue, observation and comparison. However, this gives only a limited picture of design collaboration. Observation of others' actions and design outcomes, or discussion about the same subjects, does not make the activity collaborative. An essential aspect of collaboration is the self-aware efforts to improve the shared knowledge objects, rather than simply to coordinate information and tasks (Hakkarainen, Palonen, Paavola, & Lehtinen, 2004).

Collaborative design is mediated by various design artifacts and representations, such as plans, models, prototypes, and visualizations (Bertelsen, 2000). Mediating artifacts allow people to interact with one another through the object itself, as collaborating participants' activities are mediated and made visible through them. Representations are quite open to interpretations from various groups; further, individuals interpret them differently. It follows that there may be a multitude of readings of a representation, rather than a shared understanding (Bødker, 1998). Similarly Bucciarelli (2001) stated that design representations have shared, as well as individual, meanings for the participants, because of their experience, interests and responsibilities. For this reason, representations hold ground and negotiation space for both explicit and yet-

to-be-made-explicit knowledge (Henderson, 1999), and thus help take account of various perspectives in a design community in constructing the object.

Multidisciplinary contributions are required; for example, in the Smart Clothing development process due to the hybrid nature of design object. However, Ariyatun, Holland and Harrison (2006) have found out the developers view Smart Clothes as a combination of separate pieces—fashion elements and technology—instead of one integrated object. In order to achieve an integrated outcome and high level of collaboration, designers should transcend their respective individual boundaries or perspectives and adopt methods for a greater integration of multidisciplinary contributions. This may require new strategies for negotiating roles and relating the distribution of roles to a group design. Hellström (2005) has called the designers' possible role approaches role-taking, role-shaking and role-breaking. This kind of dynamic approach is likely to promote collaboration more than dividing tasks according to competences.

### Three design experiments in textile teacher education

This chapter introduces a continuum of three design experiments in textile teacher education. The results of the design experiments are addressed briefly in this part, and discussed more thoroughly in my dissertation (Lahti, 2008). The main objective of the design experiments was to find authentic and meaningful design tasks which could be solved collaboratively and to find ways to expand collaborative design within a VDS. Table 1 shows the summary of these design experiments.

Table 1 The three design experiments carried out in textile teacher education

Design experiment	I	II	III
Design collaboration	Peer collaboration	Participatory design	Expert participation
Educational setting	Textile teacher education, University of Helsinki	Textile teacher education, University of Joensuu	Textile teacher education, University of Joensuu; Savonlinna School of Culture
Design task	Clothing for premature babies	Conference bag	Tactile book
External constraints	Hospital environment	Conference	Tactus competition rules
Design community	Ten design teams (31 students)	Six design teams (24 students) One teacher, three tutors Eight end-users	Three design teams (8 students) One teacher, two tutors Three experts
Virtual design studio	FLE-Tools <a href="http://fle3.uiah.fi">http://fle3.uiah.fi</a>	FLE2 <a href="http://fle3.uiah.fi">http://fle3.uiah.fi</a>	Knowledge Forum <a href="http://www.knowledgeforum.com">http://www.knowledgeforum.com</a>
Prototype testing	Hospital	Assessment jury	Visually impaired child
Design product	Prototype/student 10-15 clothes/team	Prototype/team	Prototype/team 3 tactile books/team

The first design experiment focused on peer collaboration among textile teacher students in the VDS; the second design experiment searched for means of taking end-users' needs into consideration in the

participatory design process; and the third design experiment looked for means to intensify computer-supported collaboration between students and domain experts.

### Design task as a source of collaborative designing

In all design experiments, the design goal was specified in the design task and in further information given to the teams. In addition, a negotiation with potential end-users or external domain-experts framed the design context. The design tasks were general and vague descriptions of the desired products, giving only partial information about the end-user, the purpose of the product and resources. Thus, they did not completely specify all the requirements, guidelines or desires for the design product. It was important to elicit students' understanding of the constraints and to provide opportunities for them to extend and share their understanding. By defining the design context together with potential end-users or external domain-experts, students learned to understand the design constraints and challenges related to the design task.

### Virtual tools for collaborative designing

The design experiments were organized so that the students worked in three- or four-person design teams, both face-to-face and virtually. The collaborative technology (i.e., FLE-Tools, FLE2 and Knowledge Forum) allowed design thinking to be more explicit and accessible to one's fellow designers and enabled participants to share their ideas and construct joint understandings. VDSs enabled parallel design activities, but also set limitations on the communication. Both FLE and Knowledge Forum provided spaces for discussing ongoing design processes as well as sharing visual design ideas. In addition, scaffold support was developed for design thinking. These scaffolds were based on the progressive inquiry model of collaborative designing (i.e., design context, design challenge, new information, design idea, evaluating idea, and organizing process).

The study (Lahti, 2008) provided evidence suggesting that the VDS supports the design process, especially during the stages of problem structuring. By searching and sharing new knowledge, the students created the basis for designing. The various external sources (e.g., the internet web-pages, books, and research papers), potential end-users, and external domain-experts provided crucial new knowledge to the design processes. The role of problem structuring in the beginning of the courses indicates that the students genuinely expanded their understanding of the design constraints and shared their cognitive achievements through the VDS. In addition, it was encouraging to notice that the inexperienced students who usually have a tendency to jump directly to solutions, engaged in an intensive problem structuring activity in the VDS.

### End-users and experts as co-designers

Participatory design emphasizes the importance of acquiring relevant information from the knowledgeable end-user of the product and ensuring that the product reflects the end-user's viewpoint. Thus the design project, from the start, should include end-users as a part of the design team. End-user participation is not easy, and symmetrical participation is especially difficult to achieve. In the second design experiment, the end-users worked voluntarily and without fee. For this reason, each individual end-user's contribution was quite limited, but the sum of all end-users' contributions can be rated as a substantial achievement. An advantage of the VDS was that the students also got information from the other teams' end-users as well as from the team's nominated end-user. The study (Lahti, 2008) suggests that, end-users participating in

product designing could beneficially 1) analyze needs and possibilities, 2) discuss proposed design elements, 3) make suggestions concerning product solutions, and 4) evaluate prototypes of new products.

In the third design experiment, experts' important contributions to the scaffolds of students' design process became apparent. The experts provided much new information concerning the design context and evaluated students' design ideas. However, it is recommended that expert participation should be facilitated by organizing and structuring networked discussions. For example, expert participation can be divided into three phases; 1) working as an information source, 2) working as a co-designer, and 3) working as a reviewer. In other words, experts can share their experiences with the whole group so that students get an enriched interpretation of the experts' previous experiences. After that, experts can work individually with a small group when groups are developing alternative designs for the same task. However, in the VDS, interpersonal communication within such a group is archived and available for all participants. Finally, the designs can be presented and evaluated collaboratively.

#### The role of mediating artifacts

The participants represented most of the design ideas verbally although they had opportunity to scan their sketches to the VDS. Especially in the clothing design project, the first-year textile teacher students' computer skills did not allow them to share their sketch development process in the VDS. Instead, in the conference bag design project, students' sketches were scanned to the database from the beginning of the process. In some cases, potential end-users had difficulties understanding these visual artifacts; the reason may be that sketches and scale drawings lacked information or the users were not familiar with these design artifacts. In addition to virtual collaboration, the feedback from the prototype testing situations had an important role for students' design progress. The analysis of the tactile book design project found that the mediating artifacts (i.e., written ideas, sketches, final drawings and prototypes) served as a basis to evaluate and question students' design proposals or to create new ideas. Unlike traditional craft and design education, where students mainly share the results of their own work, in these design experiments the design participants built ideas together in order to solve design challenges related to the design task.

#### Discussion

Although a significant amount of research has already been carried out into the area of collaborative designing, design education and virtual designing, only a few studies have been combined these three views together. Very little is known about whether and how virtual designing and computer technology may actually facilitate higher-level designing at all levels of education. On the other hand, especially in craft and design education, the interplay of visual, conceptual, and material artifacts is essential, and further studies are needed on how a VDS can be used to support conventional face-to-face instruction and in conjunction with it. Furthermore, future research projects should provide gradually specifying knowledge concerning how VDSs can be used to facilitate collaborative designing and the breaking of boundaries between school and work.

#### References

- Ariyatun, B., Holland, R., & Harrison, D. (2006). Optimizing multidisciplinary contributions for the Smart Clothing development process. *The Design Journal*, 9(1), 23-36.



- Ashton, P., & Durling, D. (2000). Doing the right thing: Social processes in design learning. *The Design Journal*, 3(2), 3-14.
- Bereiter, C., & Scardamalia, M. (2003). Learning to work creatively with knowledge. In E. De Corte, L. Verschaffel, N. Entwistle & J. van Merriënboer (Eds.), *Powerful learning environments: Unravelling basic components and dimensions* (pp. 55-68). Oxford, UK: Pergamon/Elsevier Science.
- Bertelsen, O. W. (2000). Design artefacts: Towards a design-oriented epistemology. *Scandinavian Journal of Information Systems*, 12, 15-28.
- Bødker, S. (1998). Understanding representation in design. *Human-Computer Interaction*, 13(2), 107-125.
- Brown, A. L. (1992). Design experiments: Theoretical and methodological challenges in creating complex interventions in classroom settings. *Journal of the Learning Sciences*, 2(2), 141-178.
- Bucciarelli, L. L. (2001). Design knowing and learning: A socially mediated activity. In C. M. Eastman, W. M. McCracken & W. C. Newstetter (Eds.), *Design knowing and learning: Cognition in design education* (pp. 297-314). Oxford, UK: Elsevier Science.
- Charlesworth, C. (2007). Student use of virtual and physical modelling in design development: An experiment in 3D design education. *The Design Journal*, 10(1), 35-45.
- Cobb, P., Confrey, J., diSessa, A., Lehrer, R., & Schauble, L. (2003). Design experiments in educational research. *Educational Researcher*, 32(1), 9-13.
- Collins, A. (1992). Toward a design science of education. In E. Scanlon, & T. O'Shea (Eds.), *New directions in educational technology* (pp. 15-22). New York: Springer-Verlag.
- Collins, A., Joseph, D., & Bielaczyc, K. (2004). Design research: Theoretical and methodological issues. *Journal of the Learning Sciences*, 13(1), 15-42.
- Denton, H., & McDonagh, D. (2005). An exercise in symbiosis: Undergraduate designers and a company product development team working together. *The Design Journal*, 8(1), 41-51.
- Dillenbourg, P. (1999). Introduction: What do you mean by 'collaborative learning'? In P. Dillenbourg (Ed.), *Collaborative learning: Cognitive and computational approaches* (pp.1-19). Oxford, UK: Elsevier.
- Edelson, D. C. (2002). Design research: What we learn when we engage in design. *Journal of the Learning Sciences*, 11(1), 105-121.
- Goldschmidt, G. (2004). Design representation: Private process, public image. In G. Goldschmidt, & W. L. Porter (Eds.), *Design representation* (pp. 203-217). London: Springer.
- Hakkarainen, K., Palonen, T., Paavola, S., & Lehtinen, E. (2004). *Communities of networked expertise: Professional and educational perspectives*. Amsterdam: Elsevier.
- Hellström, T. (2005). Role-taking, role-breaking and role-shaking amongst designers: A qualitative study of a team effort. *The Design Journal*, 8(2), 25-37.
- Henderson, K. (1999). *On line and on paper: Visual representations, visual culture, and computer graphics in design engineering*. Cambridge, MA: MIT Press.
- Jonassen, D. H., & Reeves, T. C. (1996). Learning with technology: Using computers as cognitive tools. In D. H. Jonassen (Ed.), *Handbook of research for educational communications and technology* (pp. 693-719). London: Prentice Hall.
- Keller, A. I., Pasman, G. J., & Stappers, P. J. (2006). Collections designers keep: Collecting visual material for inspiration and reference. *CoDesign*, 2(1), 17-33.
- Kvan, T. (2000). Collaborative design: What is it? *Automation in Construction*, 9(4), 409-415.
- Kvan, T., & Candy, L. (2000). Designing collaborative environments for strategic knowledge in design. *Knowledge-Based Systems*, 13(6), 429-438.
- Lahti, H. (2008). *Collaborative Design in a Virtual Learning Environment: Three Design Experiments in Textile Teacher Education*. (Doctoral dissertation, University of Helsinki, 2008). Department of Home Economics and Craft Science Research Reports 17.
- Land, S. M., & Hannafin, M. J. (2000). Student-centered learning environments. In D. H. Jonassen, & S. M. Land (Eds.), *Theoretical foundations of learning environments* (pp. 1-23). Mahwah, NJ: Lawrence Erlbaum.
- Love, T. (2000). Philosophy of design: A meta-theoretical structure for design theory. *Design Studies*, 21(3), 293-313.
- Maher, M. L., Simoff, S. J., & Cicognani, A. (2000). *Understanding virtual design studios*. Berlin: Springer.
- McDonagh-Philp, D., & Lebbon, C. (2000). The emotional domain in product design. *The Design Journal*, 3(1), 31-43.
- Murphy, P., & Hennessy, S. (2001). Realising the potential – and lost opportunities – for peer collaboration in a D&T setting. *International Journal of Technology and Design Education*, 11(3), 203-237.



- Reeves, T. C., Herrington, J., & Oliver, R. (2004). A development research agenda for online collaborative learning. *Educational Technology Research & Development*, 52(4), 53-65.
- Risatti, H. (2007). *A theory of craft: Function and aesthetic expression*. Chapel Hill: The University of North Carolina Press.
- Sanders, E. B. N. (2002). From user-centered to participatory design approaches. In J. Frascara (Ed.), *Design and the social sciences: Making connections* (pp. 1-8). New York: Taylor & Francis.
- Schön, D. A. (1987). *Educating the reflective practitioner: Toward a new design for teaching and learning in the professions*. San Francisco, CA: Jossey-Bass.
- Seitamaa-Hakkarainen, P., Raunio, A., Raami, A., Muukkonen, H., & Hakkarainen, K. (2001). Computer support for collaborative designing. *International Journal of Technology and Design Education*, 11(2), 181-202.
- Söderman, M. (2002). Comparing Desktop Virtual Reality with handmade sketches and real products: Exploring key aspects for end-users' understanding of proposed products. *Journal of Design Research*, 2(1) Retrieved from [www.inderscience.com/jdr](http://www.inderscience.com/jdr)
- Stempfle, J., & Badke-Schaub, P. (2002). Thinking in design teams - an analysis of team communication. *Design Studies*, 23(5), 473-496.
- Torrens, G. (2000). Understanding the product user: The implementation of a user-centred design approach by student industrial designers when designing for elderly and disabled people. *The Design Journal*, 3(1), 15-30.
- Winn, W. (2002). Current trends in educational technology research: The study of learning environments. *Educational Psychology Review*, 14(3), 331-351.

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## CRAFTS IN BASIC EDUCATION – A CHALLENGE FOR CRAFT SCIENCE

### abstract

*Finnish schools have the longest tradition in the world having of craft and design as a school subject called crafts. The tradition has very long had textile work as an area for girls and technical work for boys. The 2004 curriculum clearly indicates crafts as a subject common to boys and girls. For the first four years girls and boys study together but from the fifth class they can choose what to study and what to drop.*

*The Finnish universities have started a unique tradition by taking craft and design as an area for scientific research. Craft science was initially developed in the context of textile teacher education. Today craft science has grown and enhanced understanding of design and implementation processes as well as related issues. Many ideas on how to develop crafts in schools have been discussed. This paper aims to further the discussion by introducing considerations presented by practicing teachers.*

*The teachers (N=23) had a web discussion on the future challenges to crafts as a school subject. The content of these discussions was analyzed by data based content analysis. The results were interpreted in the context of craft science. On the basis of the results questions on the role of craft science as a substance discipline of crafts for basic education can be posed. To be able to develop crafts as a modern subject without a traditional gender label in the future teachers seem to need more support from craft sciencet.*

**keywords:** *crafts in basic education, craft science, design, entire craft process, gender labeled craft*

### Introduction

Crafts as a school subject in basic education is intended to teach pupils' skills and knowledge to allow them design and make solutions of their own. This is supposed to be achieved by an entire craft process (Anttila 1993; Kojonkoski-Rännäli 1995) in the frame of common craft. The content of crafts is divided into textile work and technical work (Curriculum 2004). Craft science serves as a substance science for crafts in basic education and offers research results especially for the design and creation of textile products. Education research provides pedagogy and didactic knowledge (Johansson & Lindfors 2008) to apply the substance of craft science in teaching. However, there are problems in developing crafts in basic education (Lindfors 2008a; Kaukinen 2007; 2006) because of traditions at school and in teacher education.

This paper focuses on craft science as a promoter of modern crafts in basic education. Modern crafts is understood here as future oriented, innovative and creative problem solving which promotes life in a three-dimensional world and is implemented through different materials and techniques (see Lindfors 2009). A goal of the paper is to consider what the future challenges of craft science are in supporting craft as a modern subject in basic education. This is done on the basis of written web discussion texts considering the development of crafts in the future. The paper offers a perspective on how craft science could support the development of modern educational craft in basic education. The considerations of this paper can be used as

one perspective on how to develop craft, design and technology at school in all countries, especially where the tradition of teaching craft in basic education is similar to that in Finland, e.g. the Baltic and Nordic countries.

### **Crafts in basic education**

Finnish schools have the longest tradition in the world of having craft, design and technology as a school subject named crafts in English and called Sloyd in Nordic countries. According to the national core curricula for basic education (2004) crafts should be taught in the spirit of an entire craft process including design, implementation and evaluation. The entire craft process means that one person proceeds with a design and making process starting with ideas and going on with planning the aesthetic, expressive and functional properties of an invented solution as well as the implementation and evaluation of the end result and the entire process. A concept of the entire craft process is distinguished from a partial craft process which does not include design and planning. Creativity, problem solving, evaluation and reflection are features of the entire craft process. The design and implementation process of the entire craft is made by some techniques and materials at a time. It does not depend specifically on some technique or material. The entire craft process can be done in any technique. (Lindfors 2008a; Pöllänen & Kröger 2006; Seitamaa-Hakkarainen 2006.)

Since 1866 the name of the subject has been changed many times from boys' and girls' handicrafts to textile and technical work. The names reveal the expectations included in the subject (Johansson & Lindfors 2008). According to historical research (Marjanen 2007; Suojanen 2000) crafts reveals how work has been gender based in society. The tradition has very long lasting in textile work as an area for girls and technical work as an area for boys. However, pupils have studied crafts as a subject common to boys and girls during the first and second year in elementary school. From the third class they have been put into groups on the basis of their gender or from the 1970's they have chosen either textiles or technical work, mainly furthering a gender based tradition. (Lindfors 2008a.) The division of the content is based on the traditional development of crafts in basic education. Teacher education has strengthened this tradition.

The curriculum of 2004 states very clearly that the crafts/sloyd is a subject common to boys and girls. For the first four years girls and boys study together but from the fifth class they can or they are put to choose to make choices what to study and what to drop out. However, the basic idea is that crafts is a common subject with a varied content of textile and technical work. The concept of common crafts is used to point to a combination of textile and technical work instead of choosing the one and dropping the other.

According to research (Autio 1997; Kokko 2006) and field experiences it seems that the old gender based tradition persists. Most girls choose textile work and most boys technical work. While they choose one content area as the main content of their craft studies they will choose the other content area as unimportant to study at the age of 11. However the material world is not divided to textile solutions made by girls or technical solutions made by boys. Many problems can be solved with different kinds of materials and techniques and there is a need to have both genders arriving at innovative solutions with variety of materials.

### **Craft science**

Craft science as a discipline is just over 25 years old in the Finnish universities. It was introduced as a totally new discipline to those universities (Helsinki 1982; Joensuu 1990) which had started master's programs

for textile teachers earlier (Anttila 1988; Kaukinen & Rauma 1998; Seitamaa-Hakkarainen et. al. 2007). The name craft science was adopted in the 1990's instead of textile science in Helsinki and textile work in Joensuu. A scientific approach to craft enabled the critical analysis and research of a hand made textile product as a phenomenon and as a process as well as textile work as a school subject (Pietikäinen 2006). The change of the name from a textile oriented discipline to craft science was an attempt to highlight craft as a wider phenomenon instead of textile material and technique oriented craft.

Today research in craft science deals with people's relationship to their surroundings and with the modeling of the living environment. The research focuses on investigating the culturally determined processes of producing craft and examining various craft products. The main research areas are the design and production processes of craft products, material and immaterial products, the relationship between processes, tools, products, human beings and culture as well as the human being as a producer and an experimenter of the material world. (Luutonen et. al. 1999; Seitamaa-Hakkarainen et. al. 2007.) The essence of craft science research is the phenomena that constitute the objects of research related to human beings' reality, and sphere of activity of designers, makers, users or observers (Seitamaa-Hakkarainen et. al. 2007).

The attempt to broaden the content of the discipline is very important considering the development of crafts in basic education. On the basis of the research definition craft science could serve as the substance discipline for crafts in basic education. However the research tradition in craft teacher education, specializing in technical work is based more on educational sciences and craft science is not studied as a discipline (Lindfors 2008a). Craft teachers specializing in textile work can have craft science as their main subject. The tradition has led to a situation in which there is no common substance science in programs in craft teacher education.

The craft science paradigm is situated at the intersection of science, art and technology. (Seitamaa-Hakkarainen et. al. 2007). Twelve doctoral dissertations were published in craft science between 1994 and 2008. These dissertations represent different research directions. They open research areas by defining key concepts and finding basic results on their special area. Uotila (1994) focused on the multilayered dynamic relationship between art, craft and clothing and brought together such concepts as clothing and semiotics, clothing and design, interweaving the concepts of clothes and design with philosophy and craftsmanship. Kaukinen (1995) investigated the elongation behavior of elastic stitch types in household sewing machines. On the basis of empirical tests it was found that a serger overlock stitch type is a safe and durable seam breaking model. Luutonen (1997) investigated a rustic Finnish knitwear as a product and as a conveyor of meaning both as a phenomenological concept and as a sign. She developed a product essence analysis as a method. Koskennurmi-Sivonen (1998) investigated high quality dressmaking in the Finnish fashion house tradition. Fashion appeared to be a stage of individuality and aesthetics rather than a quick change. The absolute uniqueness of a dress and direct interaction between designer and client in the creation process were crucial for the Finnish form of unique dress creation. Seitamaa-Hakkarainen (2000) investigated expertise, problem structuring, and problem-solving in the process of professional-level weaving design using theoretical approaches and methods from cognitive sciences. The results revealed that experts appeared to structure the design problem more than advanced students and that problem structuring was important during the entire design process. Ihatsu (2002) defined craft as a concept in relation to contemporary American, British and Finnish craft. Lindfors (2002) defined the technological properties of textile products from the consumer point of view. As a result of the study, the classification of technological product properties for textiles in end-use was developed. Räisänen's dissertation (2002) was based on the multidisciplinary approach of using natural colorants as textile dyes. It showed that natural anthraquinones have a significant potential for new dyeing techniques and will provide useful alternatives to synthetic dyes. Kröger's (2003) study was to analyze

and define the kinds of learning and teaching materials that have been produced for a web site “Virtual Craft Place” (in Finnish “Käspaikka”). The results showed that the web site included various representations of craft: an activity, a product and knowledge. Kärnä-Behm (2005) investigated craft and entrepreneurship in Finnish newspapers. Skills and skilfull work formed the identity of the Finnish entrepreneurs. Kaipainen (2008) investigated Finnish tailoring practice between the 1920’s and 1960’s. The process of designing and making clothes, the products, the scope of activities and productivity as well as the changes in the practice of a country tailor were studied analyzed. In order to understand and facilitate the complex collaborative design processes in a Virtual Learning Environment (VLE) Lahti (2008) found it crucial to understand the complexity of design construction in designing objects.

The doctoral dissertations have been new departures which cannot be grouped into one type. The themes of these dissertations deal with craft and its dimensions as a multi-faceted field of science at the intersection of science, art and technology. These dissertations have contributed to the development of the new craft science by providing into use new concepts and methods as well as certain material, product and process related research results. Almost all the dissertations have yielded their results connected to textiles as a material or as a product. This is connected to the logic of the tradition of craft science. It started as a research area of designing and processing textiles and clothing (Anttila 1988). However the definition of craft science has been extended wider and it is no longer connected to material. There are new options to bring master’ degree students from various material areas to craft science (Seitamaa-Hakkarainen et. al. 2007) but the available dissertations treat craft on a general level or as textile oriented. There are so far dissertations in craft science connected to materials, techniques or products other than textiles.

## Methodology

The goal of the paper is to consider the future challenges of craft science in supporting craft as a modern subject in comprehensive school. The research question of this paper is: what kind of issues are seen as future challenges in developing craft as a subject in basic education? The research material itself is from web discussions which took place during spring 2007. A group of practising teachers (N=23) taking intermediate studies in craft science (60 ECTS) had a web discussion on the topic of the future challenges to craft at school. In the group there were 17 teachers who were mostly teaching crafts in primary or secondary schools. A few of the teachers had minor subject competence in both textile work and technical work teaching. The remainder of the group consisted of a business manager, social workers and craft entrepreneurs. All the students were women, which is typical in craft science studies because of the tradition.

In three discussion groups 73 long and reflective written messages were sent. Students’ messages were studied by qualitative data based content analysis (see Hansen 2003). Written material was read twice and expressions were categorized into sub-categories. Processing of the material included reduction of expressions to sub-categories, clustering the subcategories into 4 main categories and naming these categories. The data was in Finnish but some of the expressions of the students were translated and are presented here as examples. The final results are interpreted in relation to craft science.

## Research results

On the basis of data categorization four categories of themes were formed to emerge from the web discussion texts. These were the question of craft being more like a process or a technique, the overall image of craft in society, the value of craft in basic education and the gender label of craft.

The entire craft process versus making by techniques?

There were many comments in the discussion texts considering craft as techniques and processes. The technique was understood as an ordinary technique typical for some types of craft, like sewing or knitting. The discussion dealt with techniques as a goal in learning and as a method for solving problems in one's environment. It was agreed that in everyday life there is a need for know-how of basic craft skills and techniques, like sewing or sawing. However, the process of designing and making was seen as the most important.

“You don't need very many techniques, but you need the capability to solve different kinds of problems.”

“Should we put more weight on teaching the different techniques or more weight to design and solve open problem based tasks?”

“The main task in craft teaching is to help students to achieve a bold and open mind: I can and will do things!”

At the same people wondered what techniques would be the most important to learn and what could be omitted. The traditional dichotomy of textiles versus technical work was presented.

“If you study very many techniques you don't gain a profound understanding. You have to concentrate either on textiles or on technical work.”

“Pupils moving from elementary to secondary school can't even knit!”

The entire process of craft was seen as a core issue for the future in crafts in basic education. People were uncertain which techniques could be seen as basic knowledge in crafts but no new ideas was presented. The dichotomy of textile and technical work in crafts did not lead any competitive model which could promote future thinking about developing crafts.

The image of Crafts

The image of craft on an individual level as well as on the society level was considered. Image is understood here as an idea, symbolic picture or sign of how an issue is described on the general level with its positive and negative aspects.

It was very clearly expressed in the web discussion texts that the image of crafts is either negative or positive. The image of craft invokes negative as well as positive memories and feelings which are related to the process of making sometimes. A dichotomy of emerged of the image of crafts being either a creative, individual and active process or an image of craft being unmotivated activity with undesirable end products.

“The unpleasant and unappealing memories are due to teachers and items which you did not like making.”

“Nice memories are from situations where teachers let students make their own choices and that made it possible to make individual choices and solutions.”

“In craft lessons the goal should be to achieve positive attitudes to craft, not negative ones.”

Participants wondered why the image of craft is in many cases negative. This was seen to cause undesirable consequences on the individual and society level. Everybody in society has studied crafts

somehow at school and everybody has formed an image with positive or negative aspects. This image was seen to create a negative or positive space for crafts in society where it is evaluated as the creative and innovative design and implementation process or the traditional implementation of readymade ideas, e.g. kettleholders made in elementary school.

#### Value of craft

The value of craft in the future was addressed on the individual level and questioned on the society level. It was agreed that as an educational process craft imports the means, skills and readiness to understand how to cope in everyday life on the individual level.

“Craft has a role as a common means to cope with life and this is not appreciated by most people!”

“For a developing child the craft process is important to learn and this serves society later.”

“By learning the problem-based craft process from designing implementation and evaluation it is possible to learn meta-cognitive skills.”

“I am positive that in craft one can form spatial elements much more easily than filling the math book in the classroom.”

At the same time participants questioned why the value of craft is not appreciated on the society level by most people.

#### Gender labeled crafts

Gender issues in crafts were considered. It was felt that the old tradition of teaching craft is taken for granted by many teachers, head teachers and schools. This was seen to mean a dichotomy between textile and technical work and a dichotomy between boys and girls. The basic questions regarding the gender issue were:

*“Why there is still a need to organize different kinds of craft on the basis of traditional role models in many schools?”*

*“Why do boys choose technical work and girls textile work?”*

*“Why do pupils have to choose between textile work and technical work?”*

It was very clearly understood that it is not possible combine the traditional idea of textile work and technical work with all their techniques. The idea was not to put everything together to be able to teach the same as before in half the time. When things are combined something is inevitably lost. The traditional way has been for a child to choose either textile or technical work away at the age of eleven or twelve and this has furthered the tradition of gender labeled crafts. Something has to be left to make room for the common crafts where pupils study both textile and technical work. There does not seem to be a simple answer to this.

#### Conclusions

In light of the web discussion texts written by practising teachers who studying craft science four categories emerged which can be seen as challenges to the development of crafts in basic education: the entire craft process versus making by techniques, the image of crafts, the value of crafts and gender labeled crafts. The

categories could have been different if the texts had been written e.g. by researchers of craft science. In this case the texts were written mainly by teachers in the field who were wondering about the future of crafts in their work in basic education.

According to the 2004 curriculum crafts should be learnt as a common subject in the spirit the entire craft process without gender labels. The craft process with related issues has been the a major topic of research in craft science for over 20 years. There are many studies providing concepts, models and real examples to enhance the understanding of craft processes (Anttila 1993; Kojonkoski-Rännäli 1995; Seitamaa-Hakkarainen 2000). As pupils study 'basics' at school they do it together in textile and technical work but what do they choose after that? Do they choose the techniques of making, a process, products or expectations of role models? There is still a need to define the interrelations between craft processes, different techniques, materials and tasks or products.

The philosophical (Kojonkoski-Rännäli 1995; Uotila 1994) and empirical (Ihatsu 2002; Koskennurmi-Sivonen 1998; Kärrä-Behm 2005; Luutonen 1997) research on craft as a phenomenon has yielded concepts and there are also signs of an image of craft. The image reveals what people think about the issue. According to the data the image of craft is here either positive, as a creative, individual and active process or then negative as unmotivated activity with undesirable end products (see also Kokko 2002). The image seems to be related to the processes and products of crafts. The negative image of crafts is a problem on the individual and society level. The negative image will promote the negative view of crafts as the traditional implementation of readymade ideas which is not supposed to be the reality according to the goals of Curriculum 2004. It will not help crafts to develop in basic education and for this reason there is a need to understand more profoundly how the image of crafts evolves and how it affects on the choices people make.

The value of craft in coping in everyday life on the individual level was appreciated. At the same participants questioned why most people do not appreciate craft. Craft is seen by teachers as an activity, a product and knowledge (Kröger 2003) and there are results which offer ideas to be put to use in innovative designing and making (Lindfors 2002; Räisänen 2002). However, there is a need to study such craft which brings the light new innovations and well-being, e.g. designers who update products in the spirit of lengthening the life cycle and people who heal themselves by designing and implementing craft. The future image and value of craft has to do with well-being in chaos and changing circumstances and innovations as practical examples of creative problem solving processes in society as much as with creativity and initiative as personal and collaborative competence in everyday life.

On the basis of the craft tradition in basic education there persists the ultimate discussion of craft, gender, technical work and textile work. Crafts seems to be highly gender labeled (Lindfors 2008a; Kokko 2007) and there is no sign of change regarding the label, e.g. to creativity and innovation. We have to ask if the content of crafts in basic education should be organised more innovatively than the present division into textile and technical work. If pupils have to choose, the alternatives should be something other than between textile and technical work, e.g. an innovative jewellery course in the frame of cultural heritage, self expression with fabrics and electronics, ecological sportswear or re-designing non-functional products. This kind of re-thinking could help to develop the more varied image of crafts instead of crafts being either girls' textile work or boys' technical work. Teachers are not confident about what they should teach and instead of promoting 'a new and modern idea of crafts' they take tradition as their guide. No clear signs of change in gender divided choices of pupils are on the horizon.

The research tradition in craft science has a broad definition (Luutonen et. al. 1999; Seitamaa-Hakkarainen et. al. 2007) and it could serve as a substance discipline for crafts in basic education. However craft science research is currently mostly related to textile materials and techniques. If there were more



research related to the processes of design and implementation including other materials it would be easier to understand the process as a defining basis in common crafts instead of materials and techniques. Interesting research topics would be people who can handle the design and implementation process in life, who can handle burn-out by active action, who feel happy about designing and implementation. With a wide material area craft science could support crafts as a unique future oriented subject in basic education. If craft teacher education specializing textile and technical work had been offered at the same university, craft science would probably have solved this problem already. Craft science with a wide material area could resolve the conflict between the gender, textiles and technical work and give opportunities to craft processes as means and tools to achieve innovative solutions on individual and society level.

## References

- Anttila, P. 1993. Käsityön ja muotoilun teoreettiset perusteet. Helsinki: WSOY.
- Anttila, P. 1988. The Scientific Approach to the Study of Textiles, Clothing and Related Arts. University of Helsinki. Department of Teacher Education. Research Report 58.
- Autio, O. 1997. Oppilaiden teknisten valmiuksien kehittyminen peruskoulussa. Tytöt ja pojat samansisältöisen käsityön opetuksen kokeilussa. Helsingin yliopiston opettajankoulutuslaitos. Tutkimuksia 177.
- Hansen, A. 2003. Content analysis. Buckingham: Open University Press.
- Ihatsu, A-M. 2002. Making Sense of Contemporary American Craft. Joensuun yliopiston kasvatustieteellisiä julkaisuja no 73. Joensuu: Joensuun yliopistopaino.
- Johansson, M. & Lindfors, E. 2008. Finland – Slöjd. In Nuläge och framåtblickar – om undervisning och forskning inom det nordiska slöjdfältet. Forskning i slöjdpedagogik och slöjdvetenskap B:15/2008. Vasa, Finland: NordFo, Åbo Akademi, Pedagogiska fakulteten, 17–30.
- Kaipainen, M. 2008. Ken tilauspukua käyttää, hän herrasmieheltä näyttää. Eteläkarjalainen maalaisvaatturi ja vaatturitoiminta Suomessa 1920–1960-luvuilla. Joensuun yliopiston kasvatustieteellisiä julkaisuja N:o 125. Downloaded on 28th October 2008. [http://joypub.joensuu.fi/publications/dissertations/kaipainen\\_tilausepukua/kaipainen.pdf](http://joypub.joensuu.fi/publications/dissertations/kaipainen_tilausepukua/kaipainen.pdf).
- Kaukinen, L. K. 2007. Innovaatioaineet: käsityömuotoilu ja teknologia peruskoulun oppiaineina. In K. Merenluoto, A. Virta & P. Carpelan (ed.) Opettajankoulutuksen muuttuvat rakenteet. Ainedidaktinen symposium 2007. Turun yliopiston kasvatustieteiden tiedekunnan julkaisuja B:77, 308–313.
- Kaukinen, L. 2006. Käsityöoppiaineen arvo ja merkitys sekä opettajankoulutuksen järjestäminen. In R. Jakku-Sihvonen (eds.) Taide- ja taitoaineiden opetuksen merkityksiä. Teatterikorkeakoulun julkaisusarja. Nro 39, 76–90. Downloaded on 14th September 2008. <http://www2.teak.fi/julkaisut/TeaK39.pdf>.
- Kaukinen, L. 1995. Elogation Behaviour of Elastic Stitch Types in Household Sewing Machines: stretch stitches versus serger overlock stitces. Department of Teacher Education. University of Helsinki. Research Report 143.
- Kaukinen, L. & Rauma, A-L. 1998. Kotitalouden ja tekstiilityönopettajien koulutus Savonlinnassa. In Kaukinen, L. K. & Rauma A-L. (ed.) Kotitalouden ja tekstiilityön opettajien koulutusta Joensuun yliopistossa ja Savonlinnassa. 40-vuotisjuhla-julkaisu. Joensuun yliopisto, Kasvatustieteiden tiedekunnan selosteita. Savonlinnan opettajankoulutuslaitos 72, 3–7.
- Kojonkoski-Rännäli, S. 1995. Ajatus käsissämme. Käsityön käsitteen merkityssisällön analyysi. Turun yliopiston julkaisuja. Sarja C. 109.
- Kokko, S. 2006. Käsityöt tyttöjen kasvatuksessa naisiksi. Joensuun yliopisto. Kasvatustieteellisiä julkaisuja n:o 118.
- Koskennurmi-Sivinen, R. 1998. Creating a Unique Dress. A Study of Riitta Immonen's Creations in the Finnish Fashion House Tradition. Artefakta 7. Helsinki: AKATIIMI.
- Kröger, T. 2003. Käsityön verkko-oppimateriaalinen moninaisuus "Käspaikka" sivustossa. Joensuun yliopiston kasvatustieteellisiä julkaisuja N:o 90. [http://joypub.joensuu.fi/publications/dissertations/kroger\\_kasityon/kroger.pdf](http://joypub.joensuu.fi/publications/dissertations/kroger_kasityon/kroger.pdf). downloaded on 28th October 2008.
- Kärnä-Behm, J. 2005. Käsityö kulttuurisena kategoriana. Käsityön ja käsityöläisyyden representaatio suomalaisissa päivälehdissä. Helsingin yliopisto. Käyttätymistieteellinen tiedekunta. Kotitalous- ja käsityötieteiden laitos. Julkaisuja 12.

- Lahti H. 2008. Collaborative Design in a Virtual Learning Environment - Three Design Experiments in Textile Teacher Education. University of Helsinki. Faculty of Behavioural Sciences. Department of Home Economics and Craft Science. Research Reports 17.
- Lindfors, E. 2009. Innovation och användarcentrerad design i pedagogisk kontext – begreppsliga funderingar In J. Sjøvoll & K. Skogen (ed.) Høgskolen i Bodø. Institutt for lærerutdanning, kunst og kulturfag. Tapir akademiske forlag. In print.
- Lindfors, E. 2008a. Käsityön tutkimuksesta opetuksen kehittämiseen. In A. Kallioniemi (eds.) Uudistuva ja kehittyvä ainedidaktiikka. Ainedidaktiikan symposium 8.2.2008. Helsingin yliopisto. Tutkimuksia 298, 415–427.
- Lindfors, E. 2008b. How to teach innovation? – A case in teacher education. In M. Mäenpää & T. Rajanti (ed.) Creative Futures Conference Proceedings. Publication of Creative Leadership. Taideteollisen korkeakoulun julkaisu C 6, 256–267. [http://www11.uiah.fi/creativeleadership/cf07/cl\\_180608.pdf](http://www11.uiah.fi/creativeleadership/cf07/cl_180608.pdf), downloaded on 28th October 2008.
- Lindfors, E. 2002. Tekstiilituotteen teknologiset ominaisuudet. Tekstiilituotteen käyttö- ja hoito-ominaisuuksien tarkastelu kuluttajan näkökulmasta. Joensuun yliopisto. Kasvatustieteellisiä julkaisuja n:o 77.
- Luutonen, M. 1997. Kansanomainen tuote merkityksen kantajana. Tutkimus suomalaisesta villapaidasta. Jyväskylä: Gummeruksen kirjapaino.
- Luutonen, M., Koskennurmi-Sivinen, R., Koski, J. T., Raunio, A.-M., Salo-Mattila, K., Seitamaa-Hakkarainen, P. & Syrjäläinen, E. 1999. Työrukkana. Tutkimus Helsingin yliopiston käsityönopettajan koulutuksessa. Helsinki: Yliopistopaino.
- Marjanen, P. 2007. Kasvattavaa vai käytännöllistä käsityötä? – kansakoulun ja alkavan peruskoulun koulukäsityön tavoitteiden ja sisältöjen analyysi. Oulun yliopisto. Kasvatustieteiden tiedekunta. Kasvatustieteiden ja opettajankoulutuksen yksikkö. Lisensiaattityö.
- Suojanen, U. 2000. Slöjd och samhällsförändring. In U. Suojanen & M. Porko-Hudd (ed.) World-Wide Slöyd. Ideologi för framtidens samhälle Åbo Akademi. Institutionen för lärarutbildning/Enheten för slöjdpedagogik och huslig ekonomi. Techne Serie. Forskning i slöjdpedagogik och slöjdvetskap. B: 8/2000, 65–98.
- Seitamaa-Hakkarainen, P., Pöllänen, S., Luutonen, M., Kaipainen, M., Kröger, T., Raunio, A.-M., Sipilä, O., Turunen, V., Vartiainen, L. & Heinonen, A. 2007. Käsityötieteen ja käsityömuotoilun sekä teknologiakasvatuksen tutkimusohjelma. Joensuun yliopisto. Kasvatustieteiden tiedekunnan tutkimuksia. N:o 100, 3–18.
- Pöllänen, S. 2006. Käsityö harrastajien psyykkisen hyvinvoinnin tukena. In L. Kaukinen & M. Collanus (ed.) Tekstejä ja kangastuksia. Puheenvuoroja käsityöstä ja sen tulevaisuudesta. ARTEFAKTA 17. Tampere: Akatiimi Oy, 66–77.
- Pöllänen, S. & Kröger, T. 2006. Kokonainen ja ositettu käsityö paradigmamaailmoina. In L. Kaukinen & M. Collanus (ed.) Tekstejä ja kangastuksia. Puheenvuoroja käsityöstä ja sen tulevaisuudesta. ARTEFAKTA 17. Tampere: Akatiimi Oy, 86–96.
- National core curricula for basic education (2004). [http://www.oph.fi/ops/english/POPS\\_net\\_new\\_4.pdf](http://www.oph.fi/ops/english/POPS_net_new_4.pdf), downloaded 28th October 2008.
- Pietikäinen, I. 2006. Käsityön kaksi ulottuvuutta. In L. Kaukinen & M. Collanus (ed.) Tekstejä ja kangastuksia. Puheenvuoroja käsityöstä ja sen tulevaisuudesta. ARTEFAKTA 17. Tampere: Akatiimi Oy, 78–85.
- Räisänen, R. 2002. Anthraquinones from the Fungus Dermocybe sanguinea as Textile Dyes. University of Helsinki. Department of Home Economics and Craft Science. Research report 10.
- Seitamaa-Hakkarainen, P. 2006. Käsityömuotoilun tulevaisuus. In L. Kaukinen & M. Collanus (ed.) Tekstejä ja kangastuksia. Puheenvuoroja käsityöstä ja sen tulevaisuudesta. ARTEFAKTA 17. Tampere: Akatiimi Oy, 186–196.
- Seitamaa-Hakkarainen P. 2000. The Weaving-Design Process as a Dual- Space Search. University of Helsinki. Department of Home Economics and Craft Science. Research report 6.
- Uotila, M. 1994. Pukeutumisen kuva. Fenomenologis-eksistentiaalinen lähestyminen pukeutumiskuvien tekemiseen ja tulkintaan. Helsinki: Yliopistopaino.

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## A THEORETICAL APPROACH TO ARTIFACT DEVELOPMENT IN SLOYD/ TECHNOLOGY EDUCATION

### abstract

*This article deals with a new idea for artifact development in sloyd/technology education. This based on master thesis studies in sloyd/technology teacher education. Empirical material is collected from the students in the University of Turku, Department of Teacher Education in Rauma. Students had to create usage theory of technology for planning and developing a unique artifact in master thesis studies. They created usage theory of technology from their own ideas with the basics of the product development methods. However the connection between product development methods and sloyd/technology learning could be linked firmly for their teaching purposes. For this purpose it is introduced what are the objects of artifacts in masters' thesis (N64) and what kinds of typical artifact development processes there were. After that it is introduced basics of innovative sloyd/technology learning model. The idea is to connect artifact development and innovative sloyd/technology learning firmly in purposes of sloyd/technology education. This idea is changing the approach of artifact developing and applying it in sloyd/technology to approaches of developing sloyd/technology education.*

**keywords:** *sloyd /technology education, sloyd, technology education*

### Introduction

The main principle of this article is that sloyd/technology education masters' thesis could be more applicable to students' future sloyd teaching in comprehensive and upper secondary schools. This article has two tasks: 1) what kind of objects of artifacts does the sloyd/technology teacher student's masters' thesis and 2) how artifact development and innovative sloyd/technology learning could be linked firmly in purposes of sloyd/technology education.

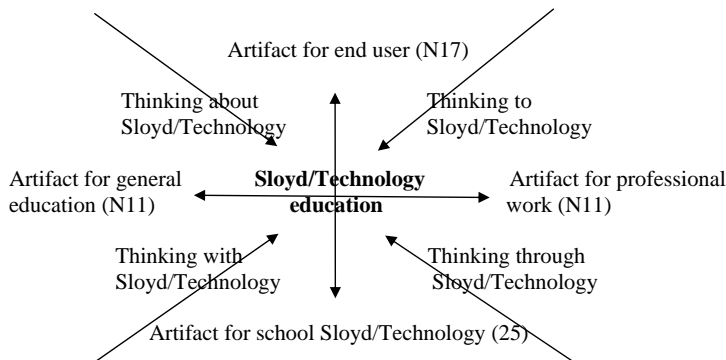
Sloyd/technology education is the main subject at the bachelor's and master's level in sloyd/technology teacher education programme at the University of Turku in Finland. The main subject sloyd/technology programme has in bachelor's level a) the knowledge of arts, such as product design, b) technology studies, like electricity, c) mechatronics, d) some mechanical engineering, e) information technology. Students craft mostly on wood, metal, plastic, textile and even stone materials. Students have trained teaching both in university training schools and local schools. In school sloyd there are plenty of same principles as in technology education. Connection between Nordic sloyd and some overall technology education is not established because of many unique combinations of content in other countries. (for examp. Borg 2007, 57-65). In Finland subject of school sloyd has developed from the university main subjects of sloyd/technology education or craft science.

In the sloyd/technology education master's level there are for example studies of technology education of sloyd, sloyd/technology pedagogic and history of craft and school sloyd. In master's thesis each pair of students have created a so called usage theory of technology and test it by planning and creating a unique

artifact with the scientific writing. (comp. Peltonen 2003). Each pair of students has approached research topics from each own envisions. Usually students have formulated their research tasks by envisioning different kinds of life actions and characterising product qualities. Finally students have to construct their unique artifact in their own practical skills. The artifact has been material or immaterial (for examp. Cd-rom teaching and learning material).

### Objects in Sloyd Education Research Thesis

The researcher of the present paper has guided analysed master's thesis (N64) of sloyd/technology education between at 2000 and 2008. Research task and usage theory of technology are compared in every thesis. Then they are compared with research problems, artifact development process and results of finally artifacts. After these analysis all thesis are put in four categories. Any of finished artifacts were pure stationary art artifacts. Objects in master's thesis were for: 1) ordinary end user, 2) professional workers, 3) educators (or some civics) in general education purposes and 4) sloyd/technology teachers. In this article two empirical examples of each object type are chosen randomly from master's theses. In the end of this chapter there are a few evocative words about four theoretical approaches for creating usage theory of technology to artifact development in sloyd/technology education. After that the idea in this article is directed in approaches through sloyd/technology.



- Four objects of sloyd/technology education masters' thesis (N64)
- Four approaches for creating usage theory of technology to artifact development in sloyd/technology education

Fig. 1 Theoretical approaches to artifact development in sloyd/technology education

The first opposite objects were for school teacher of sloyd/technology and for common artifact end user. Students had difficulties to create such unique artifact which would have good qualities both in educative school sloyd/technology and in ordinary artifact end using.

Students created 25 usage theories of technology for educational product making in school sloyd/technology. These theses have no real unique artifacts. However the finished artifacts were the core of usage theory of technology to apply it in learning theories. One example is that a pair of students created learning task for guiding pupils' geometric problem solving in sloyd/technology. For this they created usage theory of technology with developing new artifact. Finished artifact was the modular craft material with teacher

instructions. They tested the usage theory by applying it in sloyd teacher teaching and pupils' learning. The second example is that students wanted to research how pupils' can understand electronic unit learning knowledge with crafting. They applied integrative sloyd/technology teaching model. (Metsärinne 2004). They wanted to guide pupil's initiative learning construction as much as possible. Developed artifact was a scale model of the boat with teaching manual. Pedagogic purpose was that teachers will not show this artifact and manual to pupils as such. In all of these, students had difficulties for creating such a usage theory to develop real unique artifact wherefrom teacher can guide pupils' own artifact innovation in many ways.

In 17 master's theses students formulated usage theory of technology from some end user functional feelings, needs or problems. These usage theories are not suitable to apply in school sloyd/technology crafting purposes as such. This knowledge is important as so called outside school information in students teaching at future. Many common end users know quite little about technology of products also. In spite of that end users try to obtain happiness and good feeling by means of material things. This was associated in students' visible and invisible product images in thesis. So the student as a researcher was first an outsider for his/her usage theory constructing of technology. Students' had to obtain information about end user's thoughts and actions. One example is that day-care nurses must play and put children to sleep in the same room. This was problematic. Students theorized their actions in the context. After that they created usage theory of technology, criteria to product construction and constructed collapsible bed. Finally they tested this bed in the nurses and kids actions. The second example is that students had formulated usage theory of technology for disabled person. The person has a very little muscular strength to go into his private car. Student developed new prototype of automatically controlled chair from their theory. Finally they installed and tested the usage theory of technology as a prototype in the car. With the help of that chair the disabled person could lift himself up and turn himself to the side in and out of his car. In many cases these kind of thesis are needed information about environmental facts. Students had to consider material and immaterial consumer habits in communities and in global ways. Human relationship of nature with ecological and reasonable product consuming habits is belonged in these theses.

The second opposite concepts were the objects of general education (and civic action) (N11) versus professional working (N11). The category of general education included also the objects of third sector working and those of other school subject than sloyd. These are usually available for all, for example charitable organizations and common hobbies. Objects of civic actions were a bit different in the theses than overall objects of civics (education). In civics the biggest target is usually to develop social study of teaching and learning. On the other hand civics is not restricted in any subject in schools (Suutarinen 2006, 101). The objects of general education comprised quite large themes. In many cases they could apply into school sloyd learning too. Students researched quite personal ways for these objects. The first example is that student developed science and technology by producing technological learning material for teaching sound. The abstract phenomenon of sound was illustrated in the context of the ordinary life. The main aim was to produce a usage theory of technology for producing materials as a learning environment. In this environment pupils have practiced experimentally and developed their scientific reflection. The second example is that student created usage theory of technology to produce children's one-family mini house building and learning area for home fair. They produced mini modular construction bricks. They also produced computer program to help children to construct mini house and learn house building knowledge. They tested theory in home fair.

Objects of professional work (N11) were directed towards technical or craft workers. Often these workers have such a vision that certain new instrument might add their working effectiveness. That's why

the students researched not so personally ways for these objects. Naturally students' theory formulation had more specific technological knowledge than in general education category. They defined essentials factors of usage theory of technology and formulated the theory. Then they set up artifact criterion and research problems to artifact producing. After that they developed the artifact and finally they tested the artifact in use. One example is that student had created usage theory from the problem of institutional cleaner. The problem is concentrated in wash water collecting in nuclear power station. Student's new constructed cleaner was the answer for cleaners healthy and safety work problems. The second example is that student created usage theory for improving crawfish master's working ergonomic. The new hand support was the product solution to major ergonomic problems. All of theses for professional work give information especially about entrepreneurship and technology education. EU and Finland government has created guidelines of entrepreneurship education which are expanded and networked in all levels of education. In Finland entrepreneurship education is available in every level of education. (Kyrö, Lehtinen ja Ristimäki 2007, 19-22). In the future entrepreneurship will focus more and more in research on education and learning, although entrepreneurship education is basically civics. (Seikkula-Leino 2007, 28-29.) Neither entrepreneurship education nor technology education is subject of own in comprehensive or upper secondary school in Finland. They are cross-curriculum themes. They are applied and developed quite much in the subject of school sloyd.

All four objects of artifacts refer what sorts of artifact development were in theses. But the information how artifact development knowledge can guide school sloyd/technology teaching and learning could be done more. One possibility is to think how usage theory of technology can create between object categories in figure 1. Thinking with sloyd/technology means that artifact development is conceived mainly from one's self-evident truths in general education and in sloyd teacher teaching. Thinking to sloyd/technology means that artifact development is conceived mainly from three usage theory: a design and user plan theory and also industrialized theory of technology to sloyd/technology education. Thinking about sloyd/technology means that artifact development is conceived mainly from usage theory of any kind of technology education in life without certain material purposes of crafting. In the next chapter is introduced the approach of artifact developing through sloyd/technology education.

### **Thinking through sloyd/technology education**

The idea of thinking through sloyd/technology education is derived from theoretical framework on figure 1. This chapter describes the theoretical framework and typical students' artifact development process from all of thesis. Thirdly the chapter deals with a description of innovation learning model. Then the typical artifact development process is applied in innovation learning model. The purpose is that artifact developing phases consists of pupils' innovative learning knowledge for developing comprehensive sloyd/technology education.

Thinking through sloyd/technology education has mixed viewpoints of Finnish sloyd/technology teaching existence and technical and textile work habits. This viewpoint is quite different than Adamson's (2007) craft approach called thinking through craft. Adamson has concentrated on craft in the broad sense of visual arts. Finnish craft reflects also a more traditional design than American or British. American and British craft are closer to avant-garde and artistic expression. (Ihatsu 2002, 198). In this article thinking through sloyd/technology has more technical way of thinking than cultivated forms of arts and craft. So thinking through sloyd/technology is linked close to craftsmanship. Sennett (2008, 241-285) has addressed two large issues that consummate craftsmanship. In the first the craftsman desires to do good work; the

second lies in the abilities required to do good work. In Finland school sloyd/technology has tradition-directed technologies like wood, metal, electricity, textile, machines, plastics, and certain modern tendencies of technologies like information and communication technology. It is not the only point to compare technology of sloyd and some overall technology in education. It is interesting to ask, which kind of visions in different kind of production items guides pupils' innovative learning. Before analysing this question the paper deals with how students usually constructed their artifact development in the thesis. Then the process might be applied to guiding and researching pupils' innovative learning in the future.

Peltonen (2002) has introduced the basic elements of craft-sense method in his research study instructions. The next artifact development process is a short indicated and modified description from that. It is also modified, because of analysed thesis above. Students created usually usage theory of technology quite well before their artifact planning and making started. The orientation towards artifact development included the next phases:

1. Gestalt. Envisioning and knowledge achieving of research interests. The purpose is to define research task.
2. Existence of artifact vision. This is comprised quality analyses of invisible artifact vision. In this phase the artifact criteria is usually quite generally written.
3. Artifact criteria. Artifact criteria are formulated from artifact qualities. In this phase students find out more and more information about the topic. Also some of the students have achieved empirical knowledge, for example information from specialists.
4. Artifact dimensions. Artifact criteria were clarified to measurable dimensions. This has been quite demanding work for students. When students have got orientated in product planning methods it has not facilitated this work.
5. Research problems. They are derived from phases above which are called usage theory of technology in this article. Students can set up hypothesis to artifact planning and construction and also to artifact testing in this phase.
6. Artifact planning. Planning artifact design and making. Artifact criteria and dimensions defining have been done partly in student artifact planning and making. In this phase of research students orientation of product planning methods and their applying have been useful.
7. Problem solving of artifact making process. Artifact developing and documentation in produced operations.
8. Test methods. Artifact test methods are developed from the usage theory of technology and the produced operations in making the artifact.
9. Test result. Test results and comparing them to the usage theory.
10. Reliability and quality control. Reflecting and considering reliability and quality control in the each phase and all the phases of research as all. In addition students have been considered and presented follow-up research possibilities for future.

In phases of 6-9 one has a possibility to develop the usage theory by one's doing by doing knowledge construction. When students have done and test this kind of usage theory for unique artifact it is as such a quite large research project. In many cases they have done a few empirical tests in school purposes after that. Unfortunately researching time has been usually too short for doing well the planning of empirical tests in school after unique artifact developing. If all of artifact developing process can apply to school learning it should research how pupils' innovation can be part of it in the same time.



The theory model of innovative sloyd/technology learning has four ways for creating sloyd/technology process: 1) vision theory model (based on self-directed learning) 2) project theory model (project based learning), 3) problem solving model (problem based learning) and 4) processing model (draft based learning) (Metsärinne 2007). Each model comprises a different way of thinking in order to guide pupil's innovative learning. This can be done as action theory method by developing unique product and applying it in the school purposes. The first idea is to use all of these models to start guiding pupils' innovative learning. In other words the innovative sloyd/technology model comprises all four models above in the first learning phase. This is called envisioning of production item. The second phase the researcher can apply mainly project, problem solving and process models. The third phase researcher can apply mainly project and process models and in the fourth phase process model to guiding pupils innovative learning.

Envisioning production item:

One has to create first the usage theory of technology and then apply it to teaching. Teaching purpose is to guide and research pupils' production item envisioning. The applied theory parts are phase 1 (gestalt) and 2 (existence of artifact vision). This knowledge can be applied in four different learning models so that teacher can guide pupils by them as four story telling. So the innovative usage theory of technology has served as preliminary model to guide pupils' envisioning. Questions, for example how does pupils envisioned objects of production item and what kind of envisioned ideas they innovate from preliminary modelling of teacher. These are the first results of pupils of their learning innovations. These results are for pupils' sloyd/technology learning task focusing and setting.

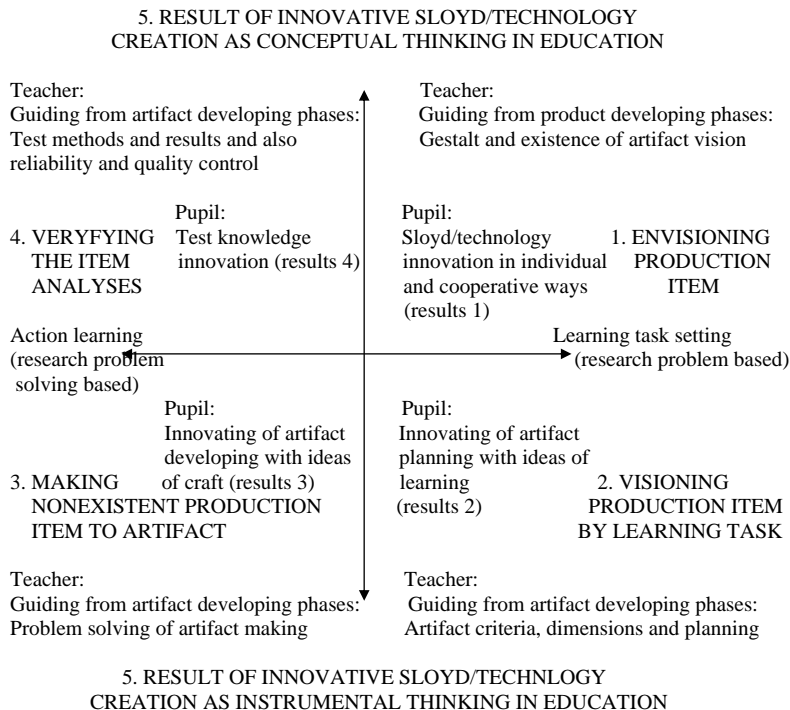


Fig. 2 Thinking through sloyd/technology education



Visioning production item by learning task:

The second results of pupils' innovation in the school can come in questions like: "how do pupils set up criteria from their production item with the learning tasks and what kind of criteria is after artifact planning?" Teacher can guide pupils from the unique artifact criteria, dimensions and planning with school learning contents. This visionary guiding can be done with the project-, problem solving- and process modelling for pupils own production item visioning to artifact plan innovation.

Making nonexistent production item to artifact:

The third results of pupils' innovation can come in the questions like: "How do pupils develop making process and what technique do they learn?" Teacher can guide pupils from unique artifact problem solving with making process and the ideas of school tools and machinery. This productive guiding can be done with the problem solving- and process modelling of technique for pupils own technical innovation of artifact development.

Verifying the item analyses:

The third results of pupils' innovation can come in questions like: "How do pupils finalise artifact and produce artifact test methods, how they test the artifact in use and what is the final qualities of artifact?" Teacher can guide pupils with preliminary model to use. This comprises knowledge of unique artifact test methods, test results and reliability and quality control of item analyses in all. This can be done with the process modelling of verifying the item analyses.

Results of innovative sloyd/technology creation as conceptual and instrumental thinking in education:

The first and the fourth results of pupils' innovation constructed their conceptual sloyd/technology learning. For example, "how do pupil envisioning and test sloyd/technology production item by means of conceptual innovation?" The second and the third results of pupils' innovation constructed their instrumental sloyd/technology learning. For example, "how do pupils plan to make sloyd/technology by means of instrumental innovation?"

The usage theory of technology changed has changed in the process. The new name could be the guiding model through sloyd/technology education. It has four guiding instructions for educating certain subject matter from the results as: 1) How does a pupil envision a sloyd/technology production item, 2) How does a pupil plan a production item with his/her focused learning task in learning contents, 3) How does a pupil develop a artifact with techniques and 4) How does a pupil create test and test the artifact in real use from production item analyses. Also the new guiding model can separate the results of pupils' conceptual and instrumental learning constructions in sloyd/technology education.

## Conclusions

First, the theoretical approaches to artifact development in sloyd/technology education were introduced. In this framework it is possible to consider sloyd/technology education for technological purposes and general educational purposes. It is also possible to consider differences and affinities of sloyd/technology education research and other same kind of research in master level of education. Object categories of artifact in master's thesis will raise two main questions.

The first question is how important are basic technologies of making artifact in sloyd/technology versus importance of end users' need of understanding and using technology in sloyd/technology. Michael (2007) has considered influences of mundane technologies and exotic technologies. Exotic technologies are new

technologies like information and communication technology or biotechnology. Mundane technologies are like paperclip, the zip/zipper, Catseyes, the ring-pull/pull-top, the post-It note, Velcro, the child-resistant cup and so on. In children's lives, the difference between mundane technology and exotic technology is not as big as it usually has written. Basics of sloyd/technology technologies with artifact development can be even more exotic than basics of using information and communication technology to them. The question is not only which new or exotic technologies should teach in school. The question is how teacher can involve basic technologies in understanding exotic technologies and vice versa in artifact developing processes.

The second question is how could aims of general education and professional working technology link in sloyd/technology education. Nowadays entrepreneurship education knowledge is one link to apply them more together in sloyd/technology. That is also one way to move sloyd/technology out of traditional craft purposes which has some exact and limited prevocational teaching aims. In other words technological work knowledge and general educational purposes should interlock in a new ways to create usage theories of sloyd/technology.

After the analysed objects of master's thesis it was introduced one approach to link artifact development in school learning. Thinking through sloyd/technology education should comprise also knowledge of how researcher can actually be part of sloyd teacher work with research ideas. This included aims of curriculums and all subject-matter pedagogic habits in school own ways. This kind of knowledge could apply especially to creating pupils conceptual learning innovation. They are considered often direct to guiding pupils artifact planning and making. Other approaches from theoretical approaches development can take into consideration completely different kind of views.

## References

- Adamson, G. 2007. Thinking through craft. Berg Publishers Oxford – New York. Borg, K. 2007. Processes or/and Products – What do teacher assess? Design and Technology Education: An International Journal 12,2. 57-65.
- Kyrö, Lehtinen ja Ristimäki 2007. Yrittäjyyskasvatuksen suuntia etsimässä. Teoksessa: Kyrö, P, Lehtonen, H & Ristimäki, K (toim.) Yrittäjyyskasvatuksen monia suuntia. Tampereen yliopiston kauppakorkeakoulu. 19-22.
- Metsärinne, M. 2004. Projekti-käsityöopetus. Tapaustutkimus projekti-käsityöhön ohjaavista opetusmuodoista sekä projekti-käsityöopetuksen suunnittelun ja ohjaamisen perusteista. (Sloyd Project Teaching, Teaching Methods of Project Sloyd: Three Case Studies). Techne Series. Research in Sloyd Education and Craft Science A: 6.
- Metsärinne, M. 2007. Käsityön oppimisen innovointi. (Sloyd learning innovation) In: Metsärinne, M & Peltonen, J (edit.): Katosiko tekninen työ Turun yliopistosta? – Tiede pieni, koulutuspolitiikka suuri & Käsityön oppimisen innovointi. (Sloyd learning innovation & Has the technical work disappeared from University of Turku) Techne Series. Research in Sloyd Education and Craft Science A: 11. Research in Sloyd Education and Craft Science A: 11. University of Turku.
- Michael, M. 2007. How to Understand Mundane Technology: New Ways of Thinking about Human-Technology Relations. In Dakers, J. R (edit.) Defining Technological Literacy. Towards an Epistemological Framework. Palgrave Macmillan. 49-63.
- Peltonen, 2002. Research study instructions. University of Turku.
- Peltonen, J. 2003. The chain of rational theories as the directing means of productive activities in academic Sloyd Education. In In Virta, K (edit.) Current research on Sloyd Education. Techne Series. Research in Sloyd Education and Craft Science A 5. University of Turku. 78-96.
- Sennett, R. 2008. The Craftsman. Yale University Press. New Haven & London.
- Seikkula-Leino, J. 2007. Opetussuunnitelmauudistus ja yrittäjyyskasvatuksen toteuttaminen. Opetusministeriön julkaisu 2007:28.
- Suutarinen, S. 2006. Tietopainotteisen kansalaiskasvatuksen aika ohi Suomessa – miten kansalaiskasvatus uudistetaan? Teoksessa: Suutarinen, S. (toim.) Aktiiviseksi kansalaiseksi. Kansalaisvaikuttamisen haaste. 99-124.

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## TOY TALES – A NARRATIVE APPROACH ON SLOYD

### abstract

*This text deals with a pilot study made in the Swedish School subject sloyd. The study aimed at some methodological questions concerning access to sloyd objects: Can ICT supported pupils collect and document research materials? Will this method reveal narrative qualities? If so, how are these expressed? The research material consists of Internet Community communication including photos taken by the pupils, and qualitative research interviews. The concepts mode and media are used in describing the empirical material. Short narratives extracted from the empirical material forms the starting point for reflection on the issue of complication and resolution. Two narrative perspectives are intertwined in the study; narrative inquiry research method and semiotic narrative. The study shows that pupils are capable of research co-operation and that narrative qualities can be observed by this method. Colour seems to play an important role as a mode of expression.*

**keywords:** *Sloyd, Narrative, ICT observation, Modes and Media, Aesthetic Expression*

### Background

The research subject area for my PhD thesis is practice based teaching and learning, in Sweden called Educational Work, with a specialization towards Sloyd. The concept Sloyd (Slöjd) is fairly equivalent to arts-crafts and design (Borg, 2001, 2006). The school subject sloyd is divided into textile sloyd and wood and metal sloyd. My focus is on creative and aesthetic aspects which are investigated from a narrative perspective.

The ontological premise for my work and life is the notion that there can be no single or fixed explanation of reality, our lives or the world. This point out an epistemological attitude towards knowledge and learning as something that is created in an interpersonal situation where the context and the artefacts shape what comes out.

The aim of this study is to explore methods for understanding the relations between sloyd products and their makers. It is assumed that sloyd products and processes carry substantial narrative qualities – both as a narrative symbolic system in their embodied and authentic representation of a mind and body in action, and as starting points for narrative inquiry – connected to the life-world in general, not only school hours, of young people.

In the article “What is narrative?” (Rankin, 2002) the author states that “Narrative is gradually coming to be comprehended as the ground in which, the relations through which and the vehicle by which humans develop knowledge of themselves and the world they inhabit.” I would like to agree with Rankin that narrative is a vehicle by which humans develop relations and knowledge and I hope some will agree upon the toy vehicles of this study as narrative.

### Tools to tell a story

I have chosen a small country secondary school for the pilot study. The pupils are free to choose either textile sloyd or wood and metal sloyd. In the one and only sixth class eight boys, but not one girl, have chosen wood and metal sloyd. The plan was to engage the pupils for three weeks. They would have sloyd class three times during the period, and I expected the pupils to spend a total of about one hour on an Internet community, and about 30 minutes for interviews. Digital cameras were handed out and I asked the boys to present photos of sloyd objects at an Internet community called bilddagboken(dot)se. They were expected to take photos of their sloyd objects both at home and in school. These photos became a starting point for comments within the Internet forum and later face to face qualitative interviews. This method turns the boys into observationers who mediate meaning through the camera lens and an Internet community. What is mediated is expected to have strong connections to the boys' life-world and personal experiences since they make their own choices of what and how to take photos. The photos cannot be considered as true positivist representations of reality – all photos lie one way or other - but still one cannot refuse their honesty and integrity in generating knowledge (Stanzcak, 2007).

Typed communication connected to the photos of sloyd objects on the Internet community provides additional research material which in combination with qualitative interviews constitutes the narrative artefact. According to Rankin (2002) "we may now posit narrative as a triad of the narrative work or artefact, the narrative mode of consciousness, and the relation between these two, characterized as communication. " The narrative artefact should not be confused with the actual sloyd object alone. Thus the narrative artefact in my research contains different modes and media of communication (Kress & vanLeeuwen, 1996, 2001) which calls for diverse perspectives in handling, interpreting and deriving results. Communication may be investigated through the research traditions of Hermeneutics, Rhetoric and Semiotics (Sonesson, 2006). I am influenced by all, though most emphasis in this pilot study is on semiotics.

Images and words are quite different mediations that also differ if presented on paper or on the screen, if I use black and white prints, whether the photos are still on the memory card or available only on the Internet. The spoken word is transformed into text. All these remediations must be recognized so as not to distort the research material.

### Modes and Media

Many of the Internet comments fall into a newly emerging mode or style of short simplified messages using emoticons and typographical resources. We can see this in one of the boy's, Daniels, comment "f\*ing nice" (j\*vla nice). He also uses the English word "nice", a feature of the pretended orality in new multimodal media communication. Another one of the boys, Richard, presented one self-portrait titled: "*me :)*", and another titled: "*öhh uhh eh cp /yepp*" (these fall into the category 'personal or private image'). The written, or rather, typed communication patterns of some digital formats does not obey grammatical rules or linguistic syntax and can hardly be analyzed as written text but may instead be interpreted as situational and associative *second orality* (Ong, 1991).

The photos can be divided into the modes; informative image, emotive image and personal or private image – all categories provide information for a narrative inquiry. Some informative images also contain private and/or emotive elements. The Internet comments and photos in the study are tightly connected within the computer screen and paper print outs but they are still fundamentally different mediations. The camera as media creates quite different meaning which is to be interpreted with another set of tools,

namely semiotic systems of interpretation. A photograph is primarily an icon, and secondarily an index with conventional features (Marner, 1999, 2005). Iconicity opens up for rich relations between the motif, image and communicator.

The interviews were recorded in the school and the mode or mood was a more or less relaxed conversation. It must be stated that interviews are always asymmetrical in terms of power relations (Kvale, 1997). This circumstance is further emphasized by the fact that I am an adult researcher who enters the situation with a well prepared agenda, in this case looking for semio-semiotic functions (Kress & VanLeeuwen 1996, 2001). I had in mind to ask for textual qualities, i.e. the design in terms of shape, colour and function, and to ask for ideational qualities, i.e. the contextual idea and meaning of the sloyd object. In practice, I first asked the boys to tell the facts about the sloyd object and then to tell the fantasy story. The interpersonal socio-semiotic function was in my hidden agenda. The actual sloyd products are not present and therefore the study lacks three-dimensional and tactile aspects for which additional methods must be employed.

### Crafting toy stories

The research result section contains three photos, three short narratives and a reflection on identity and narrative expression. The three short narratives are based on information from the photos, the comments on the Internet community and the interviews. The first objective of the pilot study is to explore some methods for a narrative approach on sloyd and the second objective is to see what kind of narrative expressions can be found. The former objective is manifested in the latter as follows.

#### 1. Fork-lift Truck

This is a story that I have constructed mainly from what Daniel said in the interview. He presented five photos showing different angles and functions of the toy truck. He was extremely sparse in comments on the Internet community; in fact he made only two short comments about the fork-lift truck seen in figure 1 ('informative image' category). As an answer to my question: What kind of machine is it? he responded: *a bloody smart thing I must say* (en svin smart pryl måste jag säga), and when asked to tell me more he writes: *it's f\*ing nice* (den är j\*vla nice)

I was surprised when I met the boy. Instead of a rough youngster with bad language I meet with a really nice good tempered boy who tells me all you would like to know. I use his words and language as close as possible in this summary.

"You see my uncle works at the "Farmers Supply" (Lantmännen), he drives the fork-lift sometimes. Well, it's not what it used to be, if you say so, the "Farmers", it's for all kinds of stuff nowadays. They even changed the name to "The Neighbors' Farm" (Granngården). It used to be for real farmers but now it's for gardening and hobby horses and all kinds of things that has got nothing to do with real farming. So, I found this picture and instructions of a fork-lift truck in a book in the sloyd workshop. I



Fig. 1 Daniels Toy Fork-lift Truck (photo: Daniel)

started working on it but it was fussy. The teacher had gotten it all wrong about the forks. I had to start all over again, you see, I first made the fork-arms in plain wood but they cracked when I was drilling, so I had to make new ones in plywood. Then I painted the body red but nothing more. It was quite difficult to make the fork-lift truck, I was working on it in the fourth and I finished it in the fifth class. It's not that many pieces but it takes long time to cut them out, and polish, and make everything fit. My little brother plays with the fork-lift truck nowadays."



Fig. 2 Daniels Toy Tractor with Trailer and Logs (photo: Daniel)

## 2. White Lamborghini

The second story is also told by Daniel. He presented six photos of the tractor on the Internet community showing different angles, some with the trailer connected and loaded with timber. Figure 2 shows the different parts of the toy tractor with trailer and timber in the 'informative image' category. He did not respond to any of my questions or comments on the Internet community. Again the story is

extracted from information from the photos and what Daniel said in the interview. This story is very close to his words.

"It was at the end of the semester and I couldn't start making anything real big or so. Then I thought I can make a tractor because I know how to do. Well, so I made one. And then I made the trailer and logs and so on. I was all the time thinking how it would look like, but I got it not much alike. The real tractor is wider in the middle, and then there's the tires, you see they are further back and the body is different. The trailer is more alike but it has no crane, which makes it look more like an old one, commonly used with the Old Grey (Ferguson Grålle), which had no connections for the hydraulic oil. Nowadays you just hit a handle and you get two or six handles in front of you to steer the crane. The same as an excavator. It can turn this way and that way, lift up and down, and fold in the middle, and at the end there is a bucket or a grip that can turn back and forth, and then you have the props to prevent it from tipping over, but there is still a risk that it may tip over. You may only take the maximum load, but if you reach far out and grab too much it starts to tip, then you must pull it closer. But, you see, ours is an old one that daddy built, he just used a crane that does not really fit the trailer, but he got it all right. He lets me drive it. It's quite simple to handle compared to the other one we have. There you have everything. You find buttons all over, in front, at the sides, they are placed all over. Then you have a panel, this big, with the speedometer, then two rows of control lamps and outside you have lots of buttons and controls – it's almost too much! The Old Grey had only a gear lever and just a few more controls. Lamborghinis are white. They were not so common until recently and now they are silvery; they were white till about year 2000. You can find white Valmets, and there's Valtra, Case-IH can also be white but they *are red now. John Deere and Deutz are green but it can differ according to model.*"

### 3. Ford Galaxie 1963

The third story came about quite unexpectedly. Jesper had presented some photos of his recent work in the sloyd workshop, a wrought-iron candle holder. We talked about smithwork and such but I felt we were getting nowhere until I asked him what else he had been doing during sloyd lessons. And this is what he told me about drilling and painting but most of all he spoke of rumbling American cars. Figure 3 shows a photo taken after the interview, it falls into the category ‘emotive image’ because of the perspective and angle – I feel actually the size of the driver when looking at the image! Once again the story is told using words and phrases directly from the interview.



Fig. 3 Jespers toy car (photo: Jesper)

“I don’t make anything special in sloyd, only unnecessary things. One thing I made in sloyd was a car. Not very special, just a kind of sports car. It was no good, just a lot of hassle. Looks like shit because the rear axle is not align. The drilling machine made it warp. Anyway I painted it in two colors. I know something about cars. I like American cars, especially older ones. They rumble. I hate sports cars with whining engines. It’s okay if you put in a compressor, like my buddy’s dad put in a compressor in an old Camaro and joined the Gun Road racing the other day. At Power Meet in Linde they have cars with about 500 horses, and Drag Racing too. Sometimes I stay at my dad’s house. He’s got a Ford Galaxie in the garage; it’s been there since I was born because it is disassembled, you can’t drive it. He says mom took it to pieces but she says she didn’t...and well, he has many things to do, so there is no time to fix the car. He clocked it on the highway once racing with another kind of sports car in 220, daddy just stepped on the throttle and off he goes. That’s pretty good for a -63 Galaxie with 300 horses and no boost. I never play with my car. It’s gathering dust on a shelf in my daddy’s house.”

### Disassembly

I find interesting parallelisms concerning complication and resolution in Daniels and Jespers stories above. Table 1 shows instances from both of Daniels stories.

Table 1. Complication/Resolution in stories 1 and 2

Complication	Resolution
<i>The teacher had gotten it all wrong</i>	<i>I had to start all over again</i>
<i>Fork-arms cracked while drilling</i>	<i>I made new ones</i>
<i>No crane</i>	<i>Daddy built one</i>
<i>Present/future status of toy</i>	<i>Little brother plays with it</i>

Table 2. Complication/Resolution in story 3

Complication	Resolution
<i>Rear axle warped while drilling</i>	<i>No resolution “looks like shit”</i>
<i>Car disassembled</i>	<i>No resolution “daddy doesn’t have time”</i>
<i>Present/future status of toy</i>	<i>Gathering dust on a shelf</i>



Looking only at the written stories the complication and resolution columns are fairly close to what is told. But Jespers story is continued in the photograph (figure 3) which was taken after the interview. The image shows that the toy car is no longer gathering dust on a shelf and the perspective gives the impression that the car is ready for a ride. Through a creative act in the moment of photographing Jesper has imagined himself, or/and the viewer actually the size of the toy car. This is, of course, sheer imagination and fantasy.

But what is the relation between imagination and reality? Vygotskij (1995) argue that childhood fantasy is of vital importance and that it can be looked upon as having four fundamental connections that unite fantasy activity and reality. First; the richness and multiplicity of prior experiences. Second: the relation between the product of fantasy and a complex situation in reality. Third; the emotional connection. And finally; the ability of imagination to create something new, something that did not exist in human experience – but none the less start to materialize and become something in reality, affecting things in the real world. Considering Vygotskijs theory my interpretation of Jespers story seems plausible in all four aspects.

### **Vehicles of expression**

What explicit judgements that connect the product and process with the life world are seen in the toys made by the boys? This question is central for the understanding of sloyd as narrative and the same question may also unveil some aesthetic aspects of sloyd.

The story about the fork-lift truck is different from the two other since it is a toy made from a precise description in a book. I do not know if Daniels uncle drives a red truck, but none the less the colour seems important to Daniel. The Lamborghini story is definitely about a real model – the white Lamborghini that Daniel drives some times. The colour is an important discriminating feature that tells more than I expected, it challenged my unreflected idea that most tractors are red, and I was also surprised that Daniel knows so much about tractor models. His reflection on the shape of his toy tractor reveals deep knowledge about models and a sincere wish to make an accurate representation.

Jespers toy car is painted in two colours. Broad stripes run along the body the same way as many American racing cars in touring car championships are painted. The shape of the toy car body is very much like the 1963 Ford Galaxie considering the angles of front and rear windows and the overall proportions, clearly a result of a conscious mind. It is no doubt that the toy car represents a Ford Galaxie, most probably the one in the garage.

The conclusion is that both colour and shape are main aspects for the expressiveness of sloyd products and that they cannot be ruled out in the process. Sloyd teachers, and possibly also sloyd teacher educators, may gain from these findings alertness for life world aspects and how they are expressed by students and pupils.

### **Reflecting tools and craft**

The discussion section is divided into reflection on method and reflection on narrative, the two objectives of the pilot study. The method issue is the most important one for this study and gets more attention. Please note that the research results section is also an example of methodology concerning the way I have arranged the research materials into narratives.



### Reflection on method

Handing out digital cameras to informants for documentation of objects within the private sphere is undoubtedly of immense value to get information connected to the life-world of the individuals participating in research. But this method has several implications that must be considered, one is the circumstance that I am indirectly sneaking in to people's houses. For this reason I demonstrated for the boys how to compose photos so that the objects were visible against a fairly neutral background or, if possible, in their context but always without including faces. The published photos are trimmed so as not to reveal private information. Another circumstance is that I hand over the control of what is to be the data; I simply have to trust the boys. Bundled with the control I also hand over the responsibility and consequently possible burden and anxiety of having to expose objects one may not feel very proud of. Jesper for instance never presented a photo of his father's Ford Galaxie, probably because of the shape it's in.

But the fact that I don't interfere in the process may be beneficial for the trustworthiness of the study. Many narrative inquiry researchers use research quality criteria quite different from the traditional validity and reliability concepts. Clandinin and Connolly (2000) write of "good narrative as having an *explanatory*, *invitational quality*, as having *authenticity*, as having *adequacy* and *plausibility*." (Italics in original). Bruner (1986) and Polkinghorne (1988) argue that *verisimilitude* is a major criterion.

Using Internet communities or other digital formats is very handy for communication. In the pilot study we used a popular youth site called bilddagboken(dot)se that provides possibility to share your photos with friends or anybody, depending on your choice of settings. Not one of the boys was signed in, so we created accounts for all.

It is doubtful whether the personal integrity of the informants can be sufficiently recognized considering the nature of Internet communities. Dunkels (2007) argue that we should engage in bridging the distance and allow us to participate in Internet communication in order to develop strategies for Internet communication together with young users. Still, there is always a risk that outsiders might get access to information. Though one can argue that the character of information in the pilot study is fairly harmless, but nonetheless I feel uncomfortable if I cannot guarantee strict confidentiality for the boys. They all used alias's but that doesn't rule out intrusion and bullying from outside or within the group. Of course I could have handled a multimodal communication by e-mail, but we would have lost the interactive tools on the Internet community as well as interaction between participants. These dilemmas are not so much technical as ethical and call for further research.

### Reflection on narrative

The central idea in my research project is that sloyd is narrative in itself and that sloyd can be subject to narrative inquiry research. I do not think that a sloyd process and/or product are equal to a novel or a short story or any other text. But I do claim that sloyd is narrative expressed in another symbolic system such as a visual mode, as a tactile mode or other representation – equally potent to construct and communicate meaning. I use different tools to reveal the communicative quality of sloyd of which semiotics provides one major set that is not connected to textual representations. Rhetoric and hermeneutics provide other possible sets that enlighten the different modes and media in the study and thereby widen the concept of text beyond mere words.

I use the narrative triad from Rankin (2002); the narrative work or artefact, the narrative mode of consciousness, and the relation between these two, characterized as communication. From my point of view the narrative artefact is a combination of the actual sloyd object itself, photographs of that sloyd object,

Internet communication concerning that sloyd object and qualitative interviews based on that sloyd object. I use a narrative mode of consciousness in relation to the narrative artefact. The maker of the sloyd object is seldom or never aware of a narrative consciousness in relation to the sloyd object and process. The relation between the narrative artefact and my narrative consciousness comes through the interpretation of the modes and media of the artefact in order to understand what is communicated. Furthermore I am interested in how this relation is, consciously or sub-consciously, expressed by the maker in the object itself, especially concerning what aesthetic resources are employed.

What is seen in the three narratives of this text is that sloyd products immediately occupy a physical and symbolic space within the life-world, and connect to life history of not only the maker but also the family and in some cases reach out to relatives, friends and associates (Borg, 2001). This is also evident in all narratives of the pilot study, a circumstance that calls for more detailed analysis in my research project.

## References

- Borg, Kajsa. *Slöjdämnet; intryck – uttryck – avtryck*. Linköping: Linköpings Universitet, 2001
- Borg, Kajsa. What is Sloyd? A question of legitimacy and identity. I Borg, K. & Erixon, P-O (red.) *Tidskrift för lärarutbildning och forskning* 2-3/2006. Theme: Sloyd – tradition in transition. Umeå: Umeå Universitet, Fakulteten för lärarutbildning, 2006
- Bruner, Jerome. *Actual Minds, Possible Worlds*. Cambridge, Mass.: Harvard University Press, 1986
- Clandinin Jean D. & F. Michael Connelly. *Narrative Inquiry*. San Fransisco: Jossey-Bass, 2000
- Connell, R. W. *Masculinities*. Berkeley and Los Angeles: University of California Press, 2005
- Dunkels, Elza. *Bridging the distance: childrens strategies on the internet*. Umeå: Umeå Universitet, 2007
- Graue, Beth. "Writing in Education Research" i Clifton, Conrad F. & Ronald C. Serlin (Eds.) *The SAGE handbook of educational research*. Thousand Oaks: SAGE, 2006
- Kress, Gunther & Theo van Leeuwen. *Multimodal Discourse – the Modes and Media of Contemporary Communication*. New York: Oxford University Press Inc, 2001
- Kress, Gunther & Theo van Leeuwen. *Reading Images: the grammar of visual design* London: Routledge, 1996
- Kvale, Steinar. *Den kvalitativa forskningsintervjun*. Lund: Studentlitteratur, 1997
- Marner, Anders. *Burkkänslan*. Umeå: Umeå Universitet, 1999
- Marner, Anders. *Möten och medieringar – estetiska ämnen och lärprocesser i ett semiotiskt och sociokulturellt perspektiv*. Monografi, Tidskrift för lärarutbildning och forskning. Umeå: Umeå Universitet, 2005
- Mellström, Ulf. "Teknik och maskulinitet: män och deras maskiner" i Boel Berner (red.). *Vem tillhör tekniken? Kunskap och kön i teknikens värld*. Lund: Arkiv förlag, 2003
- Ong, Walter. *Muntlig och skriftlig kultur: teknologiseringen av ordet*. Göteborg: Anthropos, 1991
- Polkinghorne, Donald E. *Narrative knowing and the human sciences*. N.Y. : SUNY, 1988
- Rankin, Jenny. "What is narrative? Ricoeur, Bakhtin and Process Approaches" *Conrescence: The Australian Journal of Process Thought*. 2002 Vol. 3 pp. 1-12, published on-line  
<http://researchbank.swinburne.edu.au/vital/access/Person/Rankin,%20Jenny%20R>.
- Sonesson, Göran. *Lecture 1: The Quadrature of the Hermeneutic Circle*. *Semiotics Seminar 2006* <http://filserver.arthist.lu.se/kultsem/doc/sonesson1.pdf>
- Säljö, Roger. *Lärande i praktiken*. Stockholm: Norstedts akademiska förlag, 2005
- Stanczak, Gregory C. (Ed.) *Visual Research Methods – Image, Society, and Representation*. Thousand Oaks: Sage, 2007
- Trahar, Sheila (ed.) *Narrative Research on Learning: comparative and international perspectives*. Oxford: Symposium Books, 2006
- Webster, Leonard & Patricie Mertova. *Using Narrative Inquiry as a Research Method*. London and New York: Routledge, 2007
- Wolcott, Harry F. *Writing up Qualitative Research*. London: Sage, cop. 2001
- Vygotskij, Lev S. *Fantasi och kreativitet i barndomen*. Göteborg: Daidalos 1995
- Öhlén, Joakim & Ingvar Frid "Berättelseforskning i Sverige – några exempel" i Carola Skott (red.) *Berättelsens praktik och teori – narrativ forskning i ett hermeneutiskt perspektiv*. Lund: Studentlitteratur, 2004

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## COMPREHENSIVE LEARNING OF CRAFT – STUDENTS’ EXPERIENCES AND THOUGHTS ABOUT INTEGRATED LEARNING IN THE CRAFT TEACHER EDUCATION AT UNIVERSITY

### abstract

*Compulsory school is often the context within which integrated teaching is given. On the other hand studies at university may be very fragmented. The aim of this research was to find new concepts of integrated teaching and offer comprehensive learning experiences for students at university. In textile teacher education, the learning unit of material and surface textile design consists of four minor courses, which were organized as a continuum. The research data of this study consists of self reflections and views expressed by students about integrated learning of crafts (N=32), which were analysed using qualitative content analysis. The results show that for the students, the purpose of the integration was not clear in the beginning. Many open questions were raised. Some of the students experienced the open situation as being challenging whereas the others considered it to be inhibiting. Members of the first group moved into their exercises confidently and were satisfied with the situation in which they themselves were able to decide what and how to work. The latter group felt it difficult to start working and would have needed clear guidance. Students of both groups agreed that it was important to work together and learn from watching others.*

**keywords:** *integration, craft, teacher education, shared expertise*

### Introduction

Research shows, that teaching broad units with project-based learning enhances motivation and student performance. Project-based learning is a teaching method that taps into students’ interests because it allows them to create projects that result in meaningful learning experiences. (Wurdinger *et al.* 2007) Moreover, if students know that they will be completing real projects in their community, they will be motivated to learn (Barron *et al.* 1998, 278). Project-based learning may be defined as active, interesting and relevant to the student. It allows student autonomy and self-learning, increases communication skills and enhances the motivation to learn. The topic of broad interdisciplinary focus is connected with project-based learning (Wurdinger *et al.* 2007; Thomas 2000; Barron *et al.* 1998). Students become engaged in project-based learning because it gives an opportunity to work with others and provide hands-on activities with self-directed learning. Students have the opportunity to discover new skills and this kind of work also allows them to progress at their own pace. Motivation and student involvement may be enhanced because students find themselves in a situation where they have to work together. Thus, project-based learning forces students to work towards a common goal (Wurdinger *et al.* 2007). In recent investigations learning, intelligence and creativity are considered more as collective characteristics and phenomena rather than the idiosyncrasies of an individual person (Hakkarainen *et al.* 2004).

One important aspect in project-based learning is to emphasize knowledge within the context of its application (Barron *et al.* 1998). Barron *et al.* stated four principles that deal with the problem of doing for the sake of doing and not doing with understanding. These principles are: 1) learning appropriate goals, 2) scaffolds that support both student and teacher learning, 3) frequent opportunities for self-assessment and revision and 4) social organizations and grouping that promote participation. (Barron *et al.* 1998). As a result there are two goals. The first goal is the acquisition of content and skills. The second objective is that students become aware of their learning activities in order to take on more responsibility for, and also ownership of their learning (Barron *et al.* 1998). In project based learning the question is the driving force. However, the question should be contextualised with the activities and conceptual knowledge. There should be action and reflection resulting in doing with understanding (Barron *et al.* 1998).

Wurdinger *et al.* (2007) suggest four elements in the inquiry process. These are: identifying the problem, making the plan, testing and reflecting. The definition of problem-based learning is a teaching method by which teachers guide students through a problem-solving process that includes identifying a problem, developing a plan, testing the plan against reality and reflecting on the plan while in the process of designing and completing a project (Wurdinger *et al.* 2007). The project should be sufficiently challenging that students engage in critical thought during the planning, testing and reflecting phases but not so challenging as to halt the learning process. Project-based learning should inspire students to solve problems, which may ultimately lead to a broader and more complete understanding of the material (Wurdinger *et al.* 2007).

By inquiry skills, Barron *et al.* (1998) mean the abilities of students to research topics in order to advance their understanding and to collaborate and communicate with others. Deep understanding of subject matter includes the ability to explain phenomena. Barron *et al.* vision involves the use of authentic but simulated problems that students and teachers can explore collaboratively. Students attain a level of shared knowledge and develop the skills that prepare them to undertake an actual project. (Barron *et al.* 1998, 278). Collaboration and team work are essential aspects of professionals' practical activity (Ferguson, 1992; Nonaka & Takeuchi, 1995 in Lahti *et al.* 2003). In their study Wurdinger *et al.* (2007) found that it takes more time to plan and implement project-based learning. It seems that certain students do more work than others when involved in group projects. In addition, it seems to be difficult for the teachers to let go of control in the classroom and allow students to work on their own (Wurdinger *et al.* 2007). Teachers used words such as excitement, challenging, holistic, higher level thinking, ownership, comprehension and retention when observing project-based learning in their classrooms (Wurdinger *et al.* 2007). Thus, the key issue is that teachers have to identify meaningful projects that challenge students to work either individually or in groups to create plans, solve problems, test out ideas and present projects to peers. Students learn from their mistakes and realize that they must re-evaluate their plans and implement them in different ways, by doing so they solve problems and achieve critical thinking. (Wurdinger *et al.* 2007).

Lahti *et al.* (2003) admit that it takes a significant amount of time and effort to develop pedagogically sound computer-supported design courses. However, they believe that in the long run the investment will pay off. The use of a collaborative virtual environment appears to be the most productive in courses that require collaboration, knowledge sharing or exchange of visual materials. It appears to be profitable to engage experts more closely in knowledge-building discourse with the students. (Lahti *et al.* 2003).

There are studies where art, craft and design have been integrated (Puurula 1998; Bloomfield & Childs 2000). Project based learning and hands-on activities should be more integrated with theoretical subjects to make them more understandable for students. Students should be able to find the connection to what they learn by their own life experiences. Information is accepted most profoundly in a situation which resembles the real situation the most (Hakkarainen *et al.* 2004).

## Research material and methodology

In previous studies we have been interested in the integration of different school subjects at compulsory school level (Räsänen *et al.* 2003 and 2004). However, the aim of this research is to find new concepts of teaching integrated subjects at the university level and also to offer comprehensive learning experiences for students in craft studies.

When we think about integrated teaching the context is very often at the compulsory school level. However, we have also thought about the studies at university which may be very fragmented. For example, the studies for textile teacher education consist of learning different craft techniques, *i.e.* dyeing, printing, embroidery, weaving, sewing, crocheting, knitting and clothing, all of which are conventionally organized as separate courses. Naturally, individual students occasionally integrate some of these courses. For example, they may study some embroidery to fit their clothing studies, but all students do not receive systematic and intentional integration, which includes several courses.

We received feedback from students stating that it requires much work to study all the small individual courses, or to make a final product and a portfolio for every course to complete a degree. Thus, we started to think about what courses and techniques could be easily put together and ended up with this solution.

The learning unit of the Material and surface textile design (8 credits) for textile teacher education at the University of Helsinki consists of four minor courses. These courses are: Expressive textile design (2 cr), Dyeing (1.5 cr), Printing (1.5 cr) and Embroidery (3 cr). One credit is equal to 27.5 hours of work (Degree Requirements of the Faculty of Behavioural Sciences 2008–2009).

These four courses were organized as a continuum that started with expressive textile design and dyeing. Printing and embroidery were organized in parallel after the first two courses were taken. Figure 1 shows the schedule of the courses. Three teachers were involved and 38 1<sup>st</sup> grade students took part in the courses. To qualify for her degree every student processed one portfolio in which she reflected her studying at every individual technique as well as at the integrated learning experiences. Students were asked to write down opinions about how the different techniques supported each other. The content of the portfolio was divided into five parts which were: 1) expressive textile design, 2) dyeing, 3) printing, 4) embroidery and 5) general feedback on the course. The research material consists of self reflections of 32 portfolios, which were analysed using material oriented content analysis. Only the parts of dyeing (part 2) and general feedback (part 5) of the portfolios were analysed, because I was especially interested in dyeing.

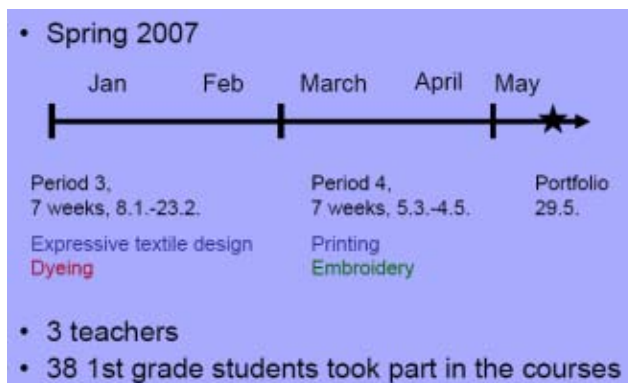


Fig. 1 The schedule of learning unit: Material and surface textile design.

## Analysis and results

At first, the portfolios were analysed in general to see if there was an overall difference in the students and their attitudes. It seemed, that for most of the students the main purpose of the integration was not clear in the beginning of the course and many questions were raised. According to their opinions the students could

be categorised into two groups. The first group regarded the open question and the complex situation as a challenging experience, whereas the other group perceived them as being inhibiting.

It seemed that the challenging group moved into their exercises with confidence. They were satisfied with the issued instructions and did not expect more specific guidelines. They were also satisfied with the situation in which they themselves were able to decide what and how to work. It was a common finding that students in this group had previous study experiences in craft, textiles or design. Yet despite their previous experience and their knowledge students encountered new learning and working techniques.

The students who felt inhibited found it difficult to start working. They needed clear instructions about what to do. Students in this group also needed a long time to accomplish their exercises. However, after a period of time it became easier for them to continue with working.

The second analysis was made by collecting students' expressions of ideas from their texts. All together 588 expressions of ideas were stated. These were divided into 204 statements, which expressed one idea and finally 12 categories of idea were formed. Table 1 lists the 12 final categories.

Table 1 Twelve categories which were the result of the material oriented content analysis.

Statement	Number of expressions
Individual goal or aim of the course	43
Teaching, given tasks or problems	28
Learning new (techniques, information etc.)	95
Learning by doing	17
Collaborative studying / working	38
Using the learned techniques at future work	91
Offerings of the process / course	72
Unique products	16
The entire course completeness	48
Integration	94
Portfolio	12
Schedule	34
<b>Total</b>	<b>588</b>

Table 1 shows that the most important aspects about the course were learning, using the newly learned techniques for future work and also integration. Nearly every student expressed that she had learned new information in the courses. For example, new theory and techniques in addition to using a diary as a tool for self-evaluation and self-analysis were learned. Even those who had previous experiments with different techniques were satisfied with the courses, and they also learned new techniques and methods. If the technique was familiar, students said that they concentrated more on the expressive aspect of the technique, *e.g.* the colours and the composition. However, two students claimed that they did not learn anything new.

Almost everyone expressed that they will continue using the techniques in their further studies. For example, they will dye their own materials. Several students wondered if they will ever be satisfied with the ready-dyed materials available in the shops after this experience. Moreover, some mentioned that they got ideas that they would also like to teach. They learned about how different techniques could be applied when working with children, youngsters or adults. Some students even wished for more experiences of the teaching techniques so that teaching such techniques would have been more emphasized, rather than just self expression.

Statements and opinions of the integration varied greatly. Five students out of 32 said that the four courses (expressive textile design, dyeing, printing and embroidery) should have been separated. They would have rather studied the courses as separate and individual units. Another five students expressed an intermediate opinion that the courses could have been taught as one unit or as separate units. These students also pointed out that students integrate courses themselves without it being a given as a task or an order. For these five students integration sometimes succeeded and sometimes not.

Most of the students agreed that, even though the beginning of the course was difficult and full of open questions, the integration and the final outcome of the course was good. Some said that it was good that the teachers 'forced' the integration. Moreover, they wished more integration between other courses. Many said that even though they were against it in the beginning they ended up with a positive attitude towards integration.

An important result, which arises from the students statements was the experience of sharing expertise. Students in both the challenging and inhibited groups agreed that it was important to work together and learn from watching others, especially as another person's experiment was different from one's own. Students got help and ideas from each other. However, every student is different. There was one opposing opinion: it was a waste of time to do group work, one could learn better by doing and experiencing all by herself.

## Discussion

According to previous studies it seems that when working with a complex problem or project, a group supports its members. This is because the project consists of several tasks and every group wants to get a result and end the project successfully (Räsänen *et al.* 2004). The principle of project based learning is validated in this study: learning is engaged in as complex social interaction and emotional processes. Collaboration between the group members is an important aspect in knowledge building. Furthermore, long term working with a meaningful subject and a problem is essential for learning. (Hakkarainen *et al.* 2004)

The results of the research of Lahti *et al.* (2004) show that students' engagement in problem structuring may be considerably facilitated by working in a networked learning environment to solve an authentic design task. Creation of shared design objects is an essential element of collaborative designing. (Lahti *et al.* 2004). Student-expert partnerships provide the students with access to authentic expert knowledge and apply it to accurate design problems (Lahti *et al.* 2004).

To conclude, what can we learn as teacher trainers? First, everybody has their own way of learning. It is not possible to create a course that satisfies all students. Teachers are the key persons to innovations in teaching (Wurdinger *et al.* 2007). The ideas that are learned during studies will be used in the students' future work. Thus, it is sometimes necessary to force the students to change their way of thinking and doing about tasks. We may create constructions and atmospheres where students may experience contradictions of differing views, which evolves their attitudes. The university lecturer is a role-model for students, in this case, future teachers. If the teacher is enthusiastic about his/her teaching it often positively affects



the students. According to this study, it seems reasonable to organize collaborative studio work during the studies. When we have less and less money to organize contact lessons, studio working without a teacher could be one example of how to reach a deep understanding and profound learning. In future research it would be interesting to study by the connection between the professional experts and the integration.

## References

- Barron, B. J. S. , Schwarz, D. L., Vye, N. J., Moore, A., Petrosino, A., Zech, L., Bransford, J. D. and The Cognition and Technology Group at Vanderbilt 1998. Doing with Understanding: Lessons from Research on Problem and Project-Based Learning. *The Journal of the Learning Science*, 7(3&4), 271–311.
- Bloomfield, A. & Childs, J. 2000. Teaching Integrated Arts in the Primary School. Dance, Drama, Music and the Visual Arts. London: David Fulton.
- Degree Requirements of the Faculty of Behavioural Sciences 2008–2009, 2009–2010, 2010–2011. <http://www.helsinki.fi/behav/opiskelu/vaatimukset/index.htm> [read 28.10.2008]
- Hakkarainen, K., Lonka, K. & Lipponen, L. 2004. Tutkiva oppiminen. Järki, tunteet ja kulttuuri oppimisen sytyttäjinä. Helsinki: WSOY.
- Lahti, H., Seitamaa-Hakkarainen, P. & Hakkarainen, K. 2003. Piloting Participatory Designing within a Collaborative Learning Environment. *Journal of Interactive Learning Research*, 14(2), 185–207.
- Lahti, H., Seitamaa-Hakkarainen, P. & Hakkarainen, K. 2004 Collaboration patterns in computer supported collaborative designing. *Design Studies*, 25(4), 351–371.
- Puurula, A. (toim.) 1998. Taido- ja taideaineiden opetuksen integrointi. Kokemuksia, käytäntöjä, teoriaa. *Studia Pedagogica* 17. Helsingin yliopisto, Opettajankoulutuslaitos, Vantaan täydennyskoulutuslaitos.
- Räisänen, R., Sundvall, M., Kovanen, P., Timonen, T. & Mäkelä, A. 2003. Integration at upper comprehensive school –Natural colorants as a method for the integration of biology, chemistry, art and craft lessons. Paper presented at the European Conference on Educational Research, University of Hamburg, 17–20 September 2003. *Education-line*, <http://www.leeds.ac.uk/educol/documents/00003413.htm>
- Räisänen, R., Timonen, T., Mäkelä, A., Sundvall, M., Kovanen, P. & Hiltunen, S. 2004. Teaching separation methods by integrating chemistry, art and craft lessons in a context of natural colorants (in Finnish, abstract in English). In L. Jalonen, T. Keranto & K. Kaila (Eds.) *Matemaattisten aineiden opettajan taitotieto – haaste vai mahdollisuus? Matematiikan ja luonnontieteiden opetuksen tutkimuspäivät Oulussa 25.–26.11.2004*, *Acta Universitatis Ouluensis, E Scientiae Rerum Socialium* 80, p. 227–233.
- Thomas, J. W. 2000. A review of research on project-based learning. <http://www.autodesk.com/foundation> [read 30.10.2008].
- Wurdinger, S., Haar, J., Hugg, R. & Bezon, J. 2007. A qualitative study using project-based learning in a mainstream middle school. *Improving Schools*, 10(2), 255–266.



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## TOOLS, HANDS AND THE EXPANSION OF INTELLECT

### abstract

*Abraham Maslow (American psychologist 1908-1970): “It is tempting, if the only tool you have is a hammer, to treat everything as if it were a nail.”(1) Tools not only provide the power to shape materials, but frame the dimensions of human intellect. There is magic in the manipulation of real tools and real materials. They create interest in the learner by engaging the hands in the exploration of physical reality and the expression of intellect. We place our children at risk of boredom and diminished capacity by abandoning of the commonplace and tools that formed the foundation of human creativity. Research on gesture, the new field of embodied cognition, and new developments in the study of depression reveal the significance of the varied and rhythmic use of the hands in the development of human intellect. We are made stupid when our hands are stilled. Most American schools and homes are involved in a risky experiment in which the common tools of artists and craftsmen are abandoned. The Clear Spring School, a small independent school in Northwest Arkansas is different. We are on the cutting edge in the making and use of tools. Our children make their own, from hand-carved ink pens based on the 1885 Nääs Sloyd model series to the looms our children use in weaving and textiles. Making tools provides a means to put the hand into action in the classroom. When the child makes the tools used in his or her hands-on exploration there is a depth of interest and understanding that cannot be approached otherwise.*

**keywords:** tools, tool-making, computer, sloyd, gesture, embodied cognition

### Tools, hands and the expansion of intellect

“Let the youth once learn to take a straight shaving off a plank, or draw a fine curve without faltering, or lay a brick level in its mortar, and he has learned a multitude of other matters which no lips of man could ever teach him” --John Ruskin, “Time and Tide”, 1883.

The United States, unlike the Scandinavian countries does not have a national curriculum in craft education. While many schools in the US have arts education, often taught by a resource teacher and with little integration with core classroom learning, craft education is extremely rare in schools. For that reason, those of us involved in crafts education are challenged to find a clear rationale for its inclusion in schools. Crafts education must compete for funding against many other more widely recognized educational needs, so part of my mission has been to demonstrate its value within a system that has been skeptical. On the more positive side, not having a standardized national crafts curriculum offers craft teachers the opportunity to be exercise personal creativity. To develop a program like my own would not have been possible in schools with greater responsibility to national standards.

When I was in high school and college I worked summers and holidays in my father’s hardware store and would slip away for an hour or so each afternoon to restore an old car under the guidance of a master craftsman. He said one day, “Doug, I don’t know why you study to be a lawyer, when your brains are so

clearly in your hands.” His comment was prophetic. It led me to reexamine my academic path, alerted me to the pleasure I received in learning and working through my hands, and ultimately caused me to question the artificial and unproductive separation between hands-on learning and academic pursuits. I became a professional craftsman, and then author of woodworking books and articles.

Prior to the 1990’s, wood shops were common in middle schools and high schools but since then wood shops have been discontinued to allow greater emphasis to be placed on academic studies. At this point, schools with wood shops have become rare. As a craftsman, author and parent, I had found myself in conversations on the internet in which I learned that wood shops were no longer considered relevant in our “information age”, and that we would all earn our livings by moving electrons from one server to another. Instead of making things we would buy everything we needed from China or some other developing nation.

According to widely published statistics, over 30 percent of American high school students fail to graduate. An additional, but unmeasured number of our best and brightest students are bored with their high school educations. Add the numbers of disinterested and deliberately disruptive students who manage to squeak through at graduation, and you might begin to think we could be doing a better job at educating our children and preparing them for their futures.

In my own wood shop, as a professional craftsman I never felt that what I was doing was obsolete. Woodworking enabled me to use a variety of skills, integrating the arts, science, history, mathematics and business. It occurred to me that woodworking in school could become central to the learning experience, making all the other conventional studies more relevant and meaningful to children’s lives. If learning were more relevant, more meaningful and more fun, school would more readily engage our children’s attention and more surely lead to their success. Thanks to my early craftsman mentor I had noticed something about my own hands that I believed to be a valuable tool in education. When the hands are engaged, the heart follows.

In the fall of 2001, we launched the Wisdom of the Hands program at Clear Spring School to demonstrate the value of woodcrafts as a part of school curriculum. We named the program Wisdom of the Hands in the belief that bringing the hands into direct action on behalf of learning would enhance learning in all areas of conventional school curriculum and for all students, even those planning to pursue college educations. We started at the high school level and over the next two years, expanded the program throughout grade levels 1 through 12. During that time I began my own research on the role of the hands in learning and I discovered that many of my own ideas were widely shared by educational theorists since the mid 1700’s and are very much a part of modern scientific research today.

## **Tools**

One of my favorite quotes is from Abraham Maslow (American psychologist 1908-1970): “It is tempting, if the only tool you have is a hammer, to treat everything as if it were a nail.”<sup>1</sup> This tells how much our tools are a part of us, how they influence our thoughts and capacities and perceptions of self.

The primary method we use in the Wisdom of the Hands program to interject the hands throughout the school curriculum is the making of tools, for it is through the use of tools that the hands take their most active role in the expression of intellect.

Thomas Carlyle said, “Man is a tool-using animal. He can use tools, can devise tools; with these the granite mountains melt into dust before him; he kneads iron as if it were soft paste; seas are his smooth

highway, winds and fire his unwearying steeds. Nowhere do you find him without tools; without tools he is nothing, with tools he is all!”<sup>2</sup>

Throughout human history we have used tools to shape our natural environment, and in turn, our use of those tools has given shape to human intellect and perception

Charles H. Ham wrote in 1886, “—the axe, the saw, the plane, the hammer, the square, the chisel, and the file. These are the universal tools of the arts, and the modern machine-shop is an aggregation of these rendered automatic and driven by steam.”<sup>3</sup>

As shown by these drawings <drillis1.jpg and drillis2.jpg> from R.J Drillis *Folk Norms and Biomechanics*, the hands have been the fundamental means through which the world has been shaped, measured, studied and understood. “All the actions of machine tools are derived from the motions of the human hand. In addition, while the metric system is based on relative abstraction, earlier concrete systems, including our system of inches and feet, were based on observation of the human hand and other parts of the human body.

### The hands

As schools have attempted to become more efficient in the process of education, children have been confined to desks with hands stilled, essentially blocking their traditional engagement in the process of learning. According to Dr. Frank Wilson, author of *The Hand, How its use shapes the brain, language and human culture*,<sup>5</sup>

“No one knows precisely when our ancestors started handling textiles and manufacturing thread, but our ability to do this, along with many other tasks, was made possible because of two critical and parallel changes in upper limb and brain structure. Biomechanical changes in the hand permitted a greatly enlarged range of grips and movements of the hand and fingers; the brain provided new control mechanisms for more complex and refined hand movements. These changes took place over millions of years, and because of the mutual interdependence of hand and brain it is appropriate to say that the human hand and brain co-evolved as a behavioral system.

“The entire open-ended repertoire of human manipulative skill rests upon a history of countless interactions between individuals and their environments, natural materials and objects. The hand brain system that came into being over the course of millions of years is responsible for the distinctive life and culture of human society. This same hand-brain partnership exists genetically as a developmental instruction program for every living human. Each of us, beginning at birth, is predisposed to engage our world and to develop our intelligence primarily through the agency of our hands.”<sup>6</sup>

Current research in the new field of *embodied cognition* recognizes that the whole body takes part in the processing of information and human intelligence. The idea that human knowledge is “brain based” or “language based” no longer provides an accurate view of who we are or how we learn. One of the areas of research involves the use of gesture. Work led by Susan Goldin-Meadow<sup>7</sup>, a psychology professor at the University of Chicago, has found that children given arithmetic problems that normally would be too difficult for them are more likely to get the right answer if they’re told to gesture while thinking. In fact, students who can use gesture in the solution of algebraic formulas have been shown to be 4 times more likely to get the right answer. Studies by Helga Noice, a psychologist at Elmhurst College, and her husband Tony Noice, an actor and director, found that actors have an easier time remembering lines their characters utter while gesturing, or simply moving.<sup>8</sup>

There is something extremely powerful about the engagement of the hands. Woodworkers have noted the therapeutic effect of woodworking, calling their time spent in the woodshop, “sawdust therapy.” By and large we feel better when we take the opportunity to immerse ourselves in the process of creating something from wood.

In our nation we have an epidemic of depression and other mental and emotional disorders and use of anti-depressant medications have become common for controlling mood and behavior. I came to my own conclusion that much of the problem has been that we have been out of touch with our own hands, and while being out of touch has disastrous consequences in adult lives, it also has profound detrimental effects on the education of our children.

The significance of the hand’s role in learning and the feelings that woodworker’s have about the therapeutic aspects of their time in the woodshop are illustrated by research conducted by Dr. Kelly Lambert at the University of North Carolina. She describes a system of “effort driven rewards” resulting from the creative use of the hands, stimulating an exchange of neuro-hormones in the brain that offsets symptoms of depression and raises overall emotional and intellectual engagement in learning.<sup>9</sup> The idea that the engagement of the hands in learning and making things might come as a surprise to our nation’s pharmaceutical suppliers, but is no great surprise to those who work with wood. Lambert’s research illustrates how the lack of hands-on engagement leads to emotional disengagement, leading to diminished display of intellectual capacity. This may explain why researcher, Susan Goldin-Meadow suggests, “If you are having trouble thinking clearly, shake your hands.”

So the great educational question we must answer in the first part of the 21<sup>st</sup> century is very much the same question asked by educational theorists at the beginning of the 20<sup>th</sup>. “How do we bring the hands to bear on the education of our children?”

### **The demonstration at clear spring school**

The Wisdom of the Hands program is different from conventional school art classes and is different from conventional woodworking programs as well. Each project is planned in cooperation with core classroom teachers to integrate with current studies. By making our own tools at Clear Spring School, we establish a relationship between the materials drawn from our environment and the student’s growth in confidence by capitalizing on the child’s natural inclinations toward creative activity. We make tools that fit a variety of different categories, each intended to enhance the school’s basic curriculum. Some of the tools enable children to do work, while others are used to expand the children’s understanding of concepts. Some are used for investigation and demonstration of scientific principles, some are used for organizing and collecting data and still others provide additional interest in classroom activities.

- Working tools are those that provide the children opportunity to do other projects, often involving crafts. Examples are looms for weaving, knives for carving, pens for learning cursive, and pencil sharpeners, among others.
- Conceptual study tools include geometric solids for the study of geometry, math manipulatives, models of the solar system, puzzle maps for study of geography and plate tectonics, abacuses for doing math problems and developing numeracy.
- Investigatory tools include windmills for studying meteorology, bug boxes and nets for catching insects, and projectile launchers for the study of trigonometry and physics.
- Organizational tools include divided trays for the collection of rocks and minerals, display boxes for collections of insects and numbered stakes for marking plant species on the school nature trails.

In addition, the children of all ages have a love of making toys and we use toys as tools to expand interest in specific areas of study. As examples, the children have made trains and various animals inspired by their reading. We have made dinosaurs inspired by their study of dinosaurs, as well as boats for the study of the sea, and cars and trucks for the study of economics and transportation. Much of the success of the program is rooted in the close relationship between classroom teachers and the wood shop.

Toy making increases the child's enthusiasm for learning at all ages. Each project tests new ideas and ends with play. Each child at Clear Spring School has a collection of treasured objects that remind of lessons learned, skills developed.

### **The key to our success:**

The fact that the classroom teachers are part of the planning process, often suggesting possible projects, leads them to become active wood shop participants, working alongside the students, demonstrating their own engagement in the learning process. Rather than the wood shop being an isolated school activity, it is successfully integrated at all grade levels.

By being deeply immersed in exploring the fundamentals of physical reality, and making his or her own tools for discovery, truly no child is left behind, no child is bored, and every child is empowered to engage in creative response to society and environment. The variety of tools that can be made in the school wood shop is without limit. So what is the difference between making an object and making a tool? Tools are intended to have use and impact beyond the time spent in the wood shop. As an example, the simple tray made for the collection of rocks and minerals is not complete until the contents have been collected, organized and labeled. A loom is not complete until it holds a completed textile. A toy is not complete until it has been played with and enjoyed and learned from. Tools have particular effectiveness in bringing the hands to work in the classroom far beyond note taking and keyboarding. The hands' profound impact on learning has been widely ignored in American education, but may also offer the pathway to educational reform and renewal.

Clear Spring School was founded in 1974 in the small town of Eureka Springs Arkansas to serve as a laboratory to explore new principles in progressive education. It serves 80 students from pre-school through high school. It is accredited through ISACS, Independent Schools of the Central States and through NAIS, National Association of Independent Schools.<sup>10</sup>

### **Endnotes**

- 1 Maslow, Abraham, *Psychology of Science: a Reconnaissance*, (Gateway, 1966) p.-12
- 2 Carlyle, Thomas *Sartor Resartus*, (Ginn 1900) p.-35-36.
- 3 Hamm, Charles H. *Mind and Hand*, Harper and Brothers, (1886)
- 4 Drills, R. J. *Folk Norms and Bimechanics*, Human Factors: the journal of the Human Factors Society (Pergamon Press 1963) pages: 427-441
- 5 Wilson, Frank, *The Hand, How its use shapes the brain, language and human culture*, (Vintage 1998)
- 6 Wilson, Frank. personal email, (January 16, 2005)
- 7 Goldin-Meadow, Susan, *Hearing Gesture: How Our Hands Help Us Think*, (Belknap Press 2005)
- 8 Bennett, Drake *Don't Just Stand There, Think*, Boston Globe (January 13, 2008) [http://www.boston.com/bostonglobe/ideas/articles/2008/01/13/dont\\_just\\_stand\\_there\\_think/](http://www.boston.com/bostonglobe/ideas/articles/2008/01/13/dont_just_stand_there_think/)
- 9 Lambert, Kelly, PhD. "Depressingly Easy" *Scientific American* August/September 2008

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## THE CONTENT OF TEXTILE: TRADITIONS AND INNOVATIONS IN SCHOOLS OF GENERAL EDUCATION IN LATVIA

### abstract

*The article gives an analysis of the content of textile of the subject Home Economics and Technologies in schools of general education in Latvia. The introduction gives an insight in the content of textile in the historical development and analyses the content of textile corresponding to the demands of the standard of the subject. The method of questionnaires was used for the empirical research. 79 teachers, 54 pupils and 51 students were inquired in order to clarify the real situation of teaching and mastering textile, as well as to make a comparative study of how the content of textile has changed in the long run. A study has been made of the teachers' choice of the programs, the choice of the textile techniques to be mastered and the textiles to be made, how the pupils understand the aims of mastering textile and what kind of activities prevail in classes of textile. It was cleared up what kind of approach and what teaching aids the teachers use when teaching textile.*

**keywords:** general education, content of textile, textile techniques, traditions, innovations.

### Introduction

The aim of the paper is to analyze the content of textiles of the subject Home Economics and Technologies in schools of general education in Latvia. The methods of research used are: studies of documents and questionnaires. Mastering textiles is a significant part of the content of the subject Home Economics and Technologies. Teaching textiles in Latvia has old tradition, different textile techniques have been in the programs of schools of general education since the beginning of the 20<sup>th</sup> century, with the exception of soviet times from the year 1954 till the year 1956 teaching textiles was interrupted. Figure 1 shows that such techniques as knitting, crochet, embroidery, sewing and weaving have been in the programs for a long time. Till the year 1991 the programs made up by the Ministry of Education were compulsory. Since regaining independence of Latvia in the year 1991 radical changes have taken place in the education system, including the content of education in schools of general education in Latvia, which is now determined by the standard. The teachers can use the program made up by the Ministry of Education and Science or they can draw up their own programs. (Urdziņa-Deruma, 2006) Since the year 2005 each pupil can choose one part of the technologies: textile or wood and metalwork, earlier girls mastered textiles, but boys mastered wood and metalwork. At present girls usually choose textiles and boys choose wood and metal work. The latest standard of the subject Home Economics and Technologies, adopted in the year 2005 is more open and it emphasizes the creative character of work with textile materials and the sequence of the handicraft process: the idea, formation, realization of the idea and evaluation. The teachers have to use different sources of inspiration: ethnography, the nature, art and others. As seen in Figure 1 it is compulsory for the pupils to master the traditional textile techniques which have been in the content of textiles for schools of general education all the time: crochet, knitting, embroidering, sewing and weaving, the mastering of

which was interrupted in soviet times, as well as the techniques of printing and painting on cloth, which are relatively new in the subject Home Economics and Technologies in Latvia. The teachers can also teach other techniques of their own choice. (Noteikumi par valsts standartu pamatizglītībā un pamatizglītības mācību priekšmetu standartiem, 2006)

Table 1 Textile techniques to be mastered in schools of general education since the beginning of the 20th century up to the present

years	1918-1940	1940-1954	1954-1956	1956-1991	1991-1998	1998-2005	Since 2005
Textile techniques	knitting	knitting	-	knitting	knitting	knitting	knitting
	embroidery	embroidery	-	embroidery	embroidery	embroidery	embroidery
	sewing	sewing	-	sewing	sewing	sewing	sewing
	crochet	-	-	1957-1959, 1973-1990 crochet	crochet	crochet	crochet
	since 1935 weaving	-	-	-	weaving	weaving	weaving
	darning	-	-	-	macramé	batik	printing and painting on cloth
	-	-	-	-	-	-	other (teacher choice)

## Methodology

With the help of questionnaires the author studied the content of textiles the pupils master in classes of Home Economics and Technologies, how fast the new techniques and the new approach are introduced in Latvia's schools, as well as to clarify what the teachers understand by the traditional approach and the non-traditional approach to teaching textiles and which approach and how they use them in their work. **The questionnaire for teachers** includes 11 questions, 6 of them are partly closed and 5 are open questions: 1 question focuses on the teaching program; 2 question are used to clarify the textile techniques the pupils have mastered; 1 question concerns the teaching aids used in classes of textiles; 1 question is used to clarify what the teachers would like to teach in the subject; 2 questions are on the prestige of the subject; 4 questions are on the teachers' approach to teaching textiles. The questionnaire for pupils includes 14 questions, 6 of them are partly closed and 8 are open questions: 4 questions are used to clarify the textile techniques and textiles the pupils have mastered to make; 1 question is on the teaching aids used in classes of textiles; 4 question focus on the creative activities in the process of mastering textiles; 1 question concerns the reasons why it is necessary for the pupils to master textile works; 2 questions are used to clarify what the pupils would like to acquire in classes of textiles; 2 questions are on the prestige of the subject. The questionnaires were filled up by 79 teachers of Home Economics and Technologies and 54 pupils representing different regions of Latvia, coming from towns and rural areas. In order to carry out the research in a comparative aspect, questionnaires were also filled up by 51 students of the University of Latvia, of the study program Teacher of Home Economics and Technologies who had obtained basic education (finished grade 9) from the year 1994 till the year 2002.



## Results of the research

The answers to the question "Do you use the program offered by the Ministry of Education and Science or do you draw up your own program?" were as follows: the majority (73%) of the teachers answered that they use the program offered by the Ministry of Education and Science making only minor changes in it (in the number of lessons for a particular theme, by exchanging one theme by another). 23 % of the teachers use program offered by the Ministry of Education and Science, 4% of the teachers draw up their own programs.

The answers to the question "Which textile techniques do you teach in classes of textiles?" given by all the 79 teacher-respondents were that they teach the following traditional techniques: knitting, embroidery, crochet and sewing. As to non-traditional techniques the most popular is batik, appliqué, patchwork and printing. About half of the respondent's (39) answered that they teach silk painting. Only 27% of the respondents teach felting (21 answers) and 20 % of the respondents teach beadwork (16 answers) (see Figure 1.). All the pupil-respondents' answers to the question "Which textile techniques do you master in classes of textiles?" were that they master knitting, embroidery, crochet (54 answers) and 53 pupils master sewing, 79% of the pupils master weaving, 77% - batik (42 and 41 answers). About half of the respondents answered that they master beadwork, 41% of the respondents master silk painting, 37% - patchwork and 26% - felting. Only 11% (6 pupils) master macramé. As to non-traditional techniques the most popular are batik, appliqué, printing, beadwork (see Figure 1). The answers show that the traditional techniques (see Figure 1) still occupy their stable position, and all the teachers teach them and the pupils master them. The only exception is weaving– it is a compulsory technique, and it is taught by 81% of the respondents and it is mastered by 79% of the pupil-respondents i.e. 4/5 of the respondents. As to non-traditional techniques the most popular are batik, appliqué and printing. Comparatively slowly are introduced the techniques of printing and painting on cloth, which have been compulsory since the year 2005: 62% of the teachers teach printing and 63% of the pupils master it, 49% of the teachers teach silk painting and 41% of the pupils master it. The new optional techniques, which are taught, are beadwork and felting, and other new techniques are on their way. Comparing the above given results with the results of the period from the years 1990 till the year 2002 when the students- respondents learned at school (see Figure 1) it is seen that the majority of pupils had mastered knitting, embroidery, crochet and sewing (49-51 answers of 51 respondents), 16 students had mastered batik, 21- appliqué and 15- weaving. Only 7 students had mastered patchwork, 5- silk painting, 4- painting 4- beadwork, 3- macramé and printing. No one had mastered felting. It should be remarked that earlier it was next to impossible to master several techniques (for example, felting, printing, etc.) because no information about them was accessible, and the needed materials and tools were not available. Since regaining independence of Latvia there appeared new materials, tools and books. Access to the resources of the Internet is of great importance, too. The teachers admit that the new techniques are interesting, but they have to learn them before teaching them to the pupils, and it takes time and finances. The materials for the pupils are expensive, too and they are not available in smaller towns and in the countryside. It is easy for the teachers to teach in the traditional way. But there are enthusiastic teachers who quickly learn new things and find possibilities to teach them to the pupils, as they know that it is a way of motivating the pupils. They also remark that it is much more interesting to teach the new techniques.



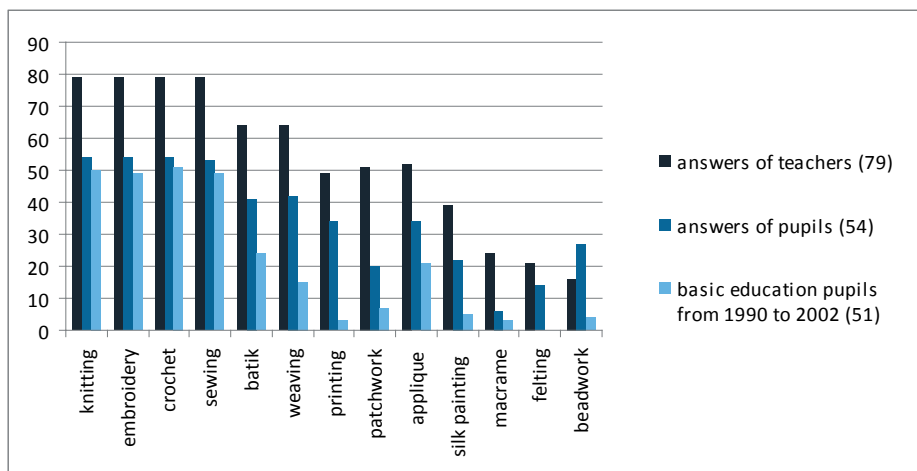


Fig.1 Textile techniques taught in schools of general education. (79 teachers' answers and 54 pupils' answers) and textile techniques the pupils (51) had mastered during the period of their basic education from 1990 to 2002

From the answers to the question "Which textile technique do you like best?" we can conclude that the pupils like more traditional techniques: embroidery (33,3%), crochet (24%), knitting (22%) and the non- traditional technique-silk painting (24%), which is a little more than half of the pupils who have mastered silk painting. Comparing with the period before the pupils liked the traditional techniques more: knitting (31%) crochet (29%), embroidery (25%), sewing (12%), weaving (10%) and of the non-traditional techniques-silk painting (8%) and batik (8%) (see Figure 2). It stands to reason because at that time not many new techniques had been introduced yet.

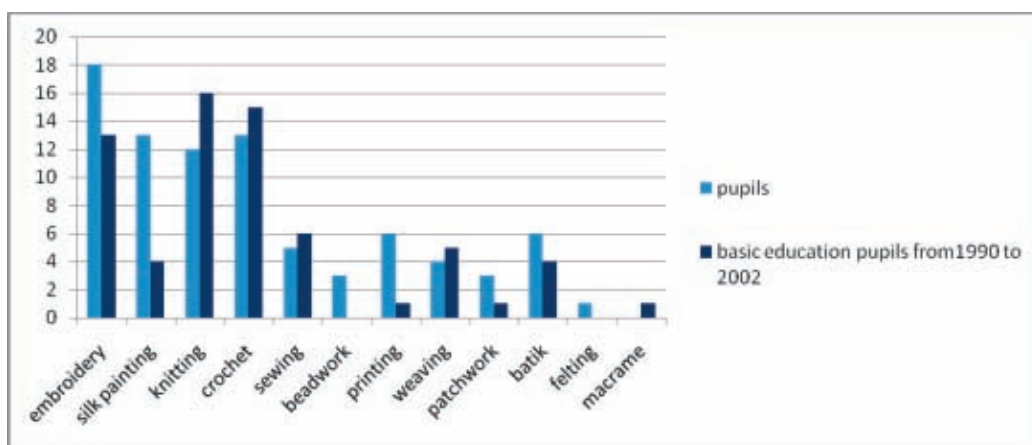


Fig. 2 Pupils' answers to the question „Which textile technique do you like best?”

Concrete suggestions were given by 25 teachers (32%) to the question "What would you like to supplement the content of textiles with?" 18 of them (23%) mention concrete techniques (for example, machine

embroidery, felting, frivolite, etc., which should be included in it. 7 teachers (9%) write that there should be decreased the number of lessons allotted to sewing, one teacher suggests that the new techniques should find place in textbooks. 9 teachers (11%) write that the choice is large enough, but 36 teachers (46%) give no answers. 9 teachers (11%) write that there are too few lessons to supplement the content of textiles. It is interesting to note that the most popular textile techniques which the pupils do not learn at school, but which they would like to learn are macramé (13 answers) and felting (12 answers) (see Figure 3).

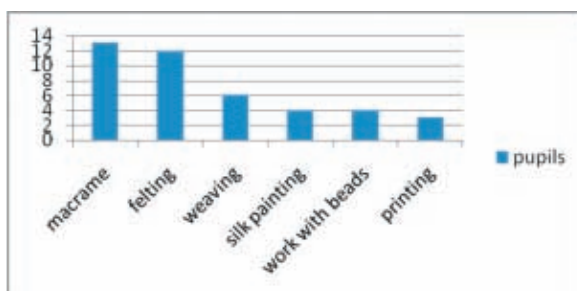


Fig. 3 Pupils' answers to the question „Which textile technique you did not learn at school would you like to learn?”

The answers to the question “What kind of textiles did you make in classes of textiles?” show that the pupils mostly made such traditional textiles as pillow cases (22 answers or 41%), skirts (14 or 26%), bags (14 or 26%), sweaters (13 or 24 %), mittens (13 or 24%), socks (13 or 24%), decorative works (11 or 20%), overlays (10 or 18,5%). Looking into the programs we can conclude that all of them contain suggestions of making such textiles. Such non-traditional articles as textile jewellery were found in answers of 4 pupils (or 7%). During the period of six and more years ago the most popular textiles the pupils made were mittens, socks and overlays. It seems that mittens, which are the symbol of Latvian identity, and socks, still retain their position. From program to program for years pupils of grade 6 master knitting socks, but pupils of grade 7 master knitting mittens.

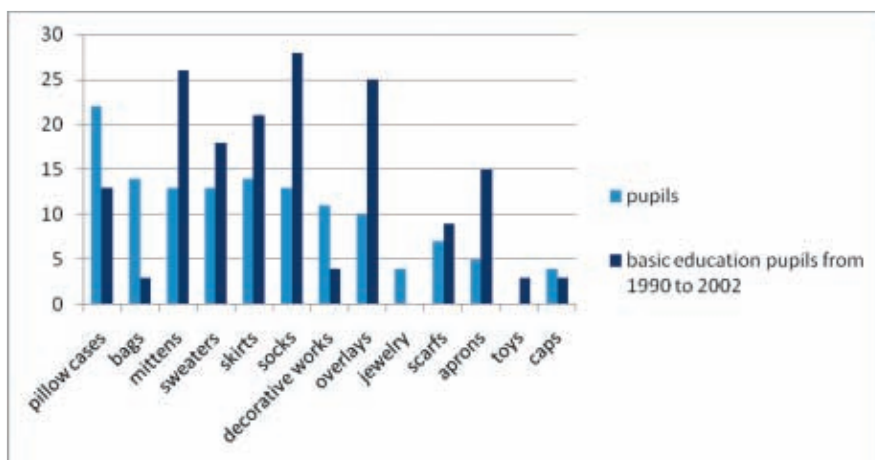


Fig. 4 Pupils' answers to the question „What kind of textiles did you make in classes of textiles?”

The answers to the question „What kind of teaching aids are used in classes of textiles?” show that all the teachers use different teaching aids. In classes of textiles almost all the teachers use textbooks, textiles made by other pupils, patterns of textiles made by the teacher herself, journals and special books on textiles in the Latvian language. 67 or 85 % of the teacher-respondents use as teaching aids textiles made by the teachers themselves. Only half of the teachers write that they go together with pupils to exhibitions. 81 % of the teacher-respondents write that they make use of the resources of Internet, whereas only 33% or 18 pupils write that the teachers use the resources of Internet. It means that the teachers do not use Internet resources in each group. 22 % of the pupils write that they have been at exhibitions together with the teacher, it means that teachers do not go to exhibitions with each group and it is quite understandable as it requires time, extra organisational activities and additional expenses. 15% of the pupils write that the teachers use special books on textiles in foreign languages. If we compare it with the period of ten and more years ago, the use of Internet was impossible. Enthusiastic teachers use more and more special books in foreign languages. If the teacher wants to learn and also teach felting, beadwork and silk painting knowledge of foreign languages is indispensable because up to now there is not a single book on textile techniques in Latvia, there are only a few publications.

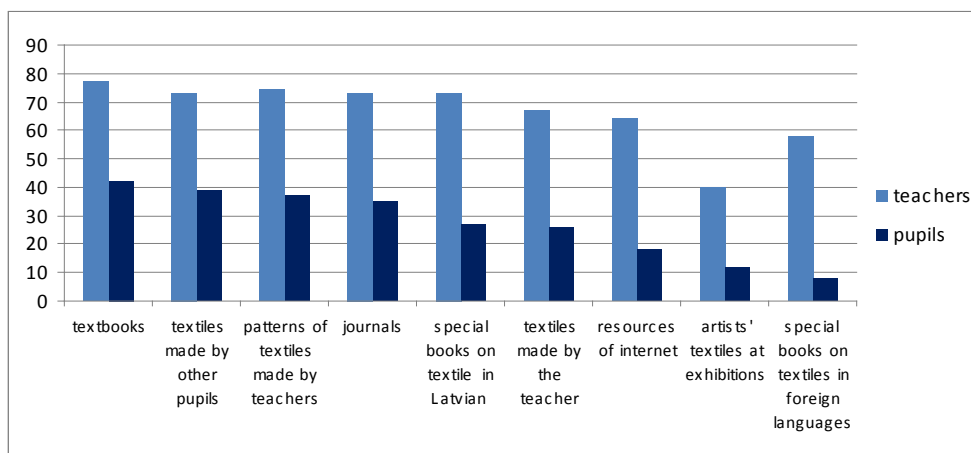


Fig. 5 Teachers' and pupils' answers to the question „What kind of teaching aids are used in classes of textiles?”

The pupils' answers to the questions „What kind of tasks do you mostly have to do to master textile techniques in classes of textiles?” and „Do you yourself devise compositions for the textiles?” show that for the most part the pupils work creatively during classes of textile (see Figures 6 and 7). It means that the standard, in which creativity is especially emphasised, is taken into account.

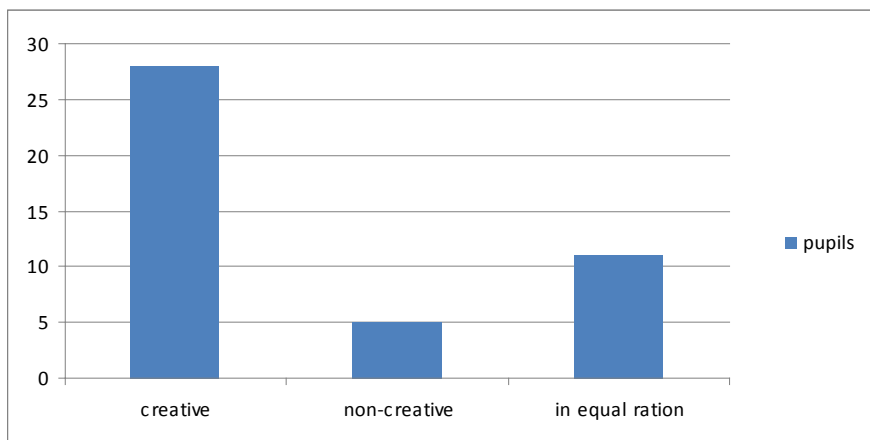


Fig. 6 Pupils' answers to the question „What kind of tasks do you mostly have to do to master textile techniques in classes of textiles?”

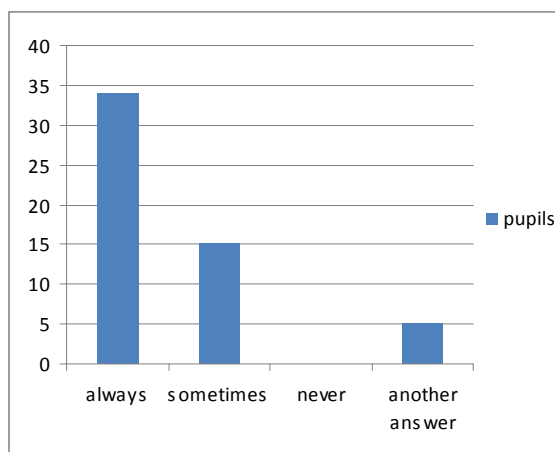


Fig. 7 Pupils' answers to the question „Do you yourself devise the compositions?”

As it is seen in Figure 8 the pupils prefer to work creatively with textile techniques (72%). Only one pupil answered that he preferred tasks of reproductive character. 5 pupils (9%) answered that they liked both the creative and the reproductive character alike.

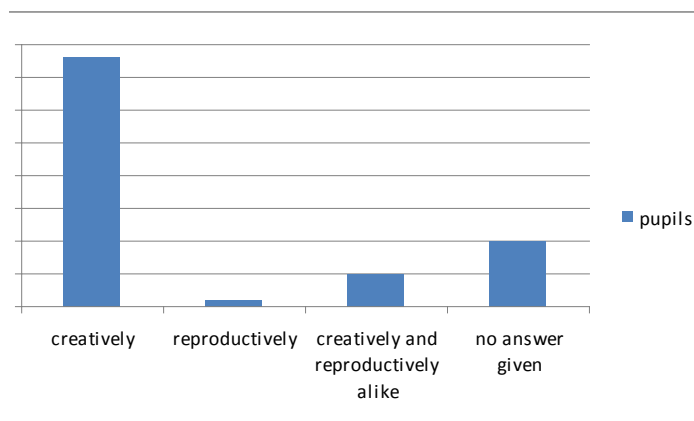


Fig. 8 Pupils' answers to the question „How do you prefer to work with textile techniques in classes of textiles?”

The pupils like to work creatively, because then they can express themselves (16 answers or 30 %), can make their own decisions (5), can develop their creativity (5), it is more interesting (4), can make a textile which nobody has (3), can show, what one likes most (2), can express their feelings (2), can choose something easier to make (1), can make something useful (1). A pupil who does not like creative work writes that it is easy to make a more complicated textile from a pattern.

Although no variants were given to the question “How to raise the prestige of the subject of Home Economics and Technologies?” both the pupils and the teachers gave similar answers. In their opinion the best way of raising the prestige of the subject is arranging competitions and exhibitions of different kinds. 18 teachers and 10 pupils gave such answers. Then followed updating of the content of learning written by 9 teachers and 6 pupils. 10 teachers and 1 pupil see the way of raising the prestige of the subject by supplying the textile room with materials and tools. 7 teachers and 3 pupils consider that the prestige of the subject can be raised by popularising Home economics and Technologies in mass media. 9 teachers are of the opinion that the subject should be taught by teachers capable of doing it. 1 pupil mentions that the teachers should get larger salaries. 3 teachers and 2 pupils are of the opinion that the prestige of the subject can be raised by introducing it as a compulsory subject in the secondary school.

The analysis of the pupils' answers to the question “Why should textile works be mastered?” (the variants for the answers were not given) consider mastering textile work as a means of developing useful skills (18 answers). The pupils' answers were: “To master skills, which will prove useful in life”, “To be capable of making something”, “To acquire something new”. In the answers of 11 pupils could be found points of view that by mastering textile work the pupils perfect their personalities: “To develop my creativity”(6 answers), “To perfect myself “(3 answers), “To develop thinking” (1 answer), “To develop nimbleness of my fingers”(1 answer). 2 pupils consider that it is necessary to master textile work because it is interesting. 1 of the pupils is of the opinion that indulging in textile work is a means of relaxation: “I am having a rest while busying myself with textile work”, another pupil sees in it the perspective of choosing the future profession: “Let the pupils who are good at it connect their future with textile art “.

56% of the respondents' answers to the question “Which approach do you think prevails in your teaching textiles – traditional or non- traditional?” were that the traditional approach prevailed. Most answers to the question in what way the traditional approach finds its expression are: by teaching the pupils to make traditional textiles: socks, mittens, skirts, aprons, the traditional techniques (knitting, embroidery,

crochet, sewing) and traditional elements of the techniques, which have been in the program for a long time; the pupils use one textile technique in one textile work and one material in one work; the approach is - from simple to more complicated textiles; to teach the pupils to make a pattern of the techniques first and only then make different textiles; to teach making textiles from ethnographical patterns. 44% of the respondents answered that they use the traditional approach as much as the non-traditional approach. The teachers characterize the non-traditional approach as follows: teaching the pupils the combination of different textile techniques and materials and teaching the traditional techniques in a modern way (giving the pupils the task to make a modern design); teaching non- traditional techniques (silk painting, felting, beadwork) and using non- traditional materials (wires, effectyarns and others); teaching the pupils to make non- traditional things: jewellery textiles, decorative works for the interior, different accessories for dress; use patterns of techniques in different kinds of textiles; most tasks are creative.

## Conclusions

The conclusion drawn on the basis of the analysis of the results obtained in the research is that many teachers for the most part make use of their previous experience when the teaching program drawn up by the Ministry of Education and Science was compulsory. At present, too, the majority of the inquired teachers teach textiles according to the program of the Ministry of Education and Science. The textile techniques, which have been in the programs the whole time and are compulsory are taught and acquired by almost all the respondents at present, too. The textile techniques, which comparatively recently have been included in the content of the subject like other textile techniques, chosen by the teachers themselves, gradually come into the schools. This process is detained by the fact that the teachers themselves do not have a good knowledge of them, they are not in the textbooks, there is lack of special books in Latvian and accessibility to materials and tools, as well as the expenses. Part of the teachers consider that they teach textiles in the traditional and non-traditional way in equal ration, the other part of the teachers are of the opinion that they teach textiles in the traditional way. The features of the non-traditional approach are - teaching new textile techniques, new materials and putting stress on creative tasks. The main feature of the traditional approach is to teach textiles as it has been taught for years. For the greatest part the pupils themselves make compositions of textiles; they work creatively, which corresponds to the demands of the standard of the new discipline. The pupils are also conscious of the advantages and the role of creative activities in contrast to reproductive activities. The pupils mainly associate the need of mastering textiles with the acquisition of skills and the perfection of their personalities.

According to the author the problem is how to keep balance between the traditional things- techniques, patterns, traditions and modern things- new techniques, a modern design, the impact of other cultures. On the one hand, it is important to retain the traditions for the future generations, to keep one's national identity, on the other hand, the times and the culture are changing, the new textiles is a way of popularising textile work, of how the teachers can enhance motivation to master textile work at school.

## References

- Urdziņa-Deruma, M. (2006.) *Historical Development of Handicraft Education in Schools of General Education in Latvia*. Bulletin of Institute of Vocational and Technical Education Graduate School of Education and Human Development, Nagoya University, Japan, No3, June 2006, pp. 31-43.
- Noteikumi par valsts standartu pamatizglītībā un pamatizglītības mācību priekšmetu standartiem.*(2006.) <http://www.isec.gov.lv>

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